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S.R.C.

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"ON APPENDICITIS."

By F. G. Lloyd, M.R.C.S.Eng., L.R.C.P.Lond.

Mr. President and Gentlemen,—I propose with your kind attention to read a paper this evening on the subject of "Appendicitis."

Although my experience of this subject is comparatively limited, I hope it may prove of some slight interest to the members of this Society, and be the means of promoting an interesting discussion. The "Appendix Vermiformis" in health may not be of great importance, but under pathological conditions, when its normal resisting power is altered or its vitality lowered, and it is the seat of bacterial invasion from local or constitutional causes, this insignificant tube may give rise to some of the most urgent conditions with which we may be called upon to deal. In reading this paper before you I make no attempt to be dogmatic. I venture to place before you only those facts which already seem established, some of which I have been able to confirm, and some observations of my own, knowing that these are apt to be ill-founded. Especially is this the case with regard to treatment, where I have a leaning, as you will see, towards the conservative side.

Appendicitis means inflammation of the vermiform appendix. It is to be distinguished from a similar condition of

the cæcum, known as "typhlitis," and of the ileum, known as "ileitis." It is a disease which has its origin in the vermiform appendix, but occasionally exists as a complication of typhlitis or perityphlitis by extension or through the vascular or lymphatic system.

Appendicitis may be divided into the following varieties, which differ from one another in degree rather than in kind, and correspond with the degrees of inflammation to be met with in other parts.

(1) *Acute Appendicitis*, with or without inflammation of the peritoneum, (*a*) ending in resolution; (*b*) ending in suppuration, ulceration, or abscess; (*c*) ending in gangrene; (*d*) ending in perforation.

(2) *Chronic Appendicitis.*

(3) *Relapsing Appendicitis.*

(4) *Latent Appendicitis.*

(Mr. Lloyd then gave a detailed account of the anatomy and physiology of the appendix, and in connection with the topographical anatomy he laid special stress on McBurney's and Munroe's points.)

Pathology.—Disease of the appendix vermiformis is very common and morbid changes are met with in about 20 per cent. of all bodies examined *post mortem.* Appendicitis may originate from local or constitutional causes: (1) It may originate from causes within the lumen of the tube; this I venture to think is by far the commonest; (2) from causes within the wall of the tube or arriving through its vascular, lymphatic, or nervous supply; (3) from causes outside the tube by injury, pressure, or extension of inflammation.

Inflammation.—It would seem to depend on one of three causes, namely:—

(1) Lowering of the vitality of the tube from any cause giving rise to deficiency of normal resisting power to bacilli, cocci, and mixed infection.

(2) The number, virulence and specific kind of bacteria present.

(3) The capability of the walls of the tube to expel its contents into the cæcum.

Bacteria are always found present in the gastro-intestinal

tract from the mouth to the anus, but except under altered pathological conditions give rise to no pathological signs or symptoms. These bacteria are not present in the fœtal appendix, but are usually found present in a normal appendix after birth. They probably assist digestion in the process of fermentation.

The vermiform appendix may be found in part or along its whole length in one of the following conditions of inflammation: (1) confined to the surface of the lumen; (2) involving one or more of its coats; (3) perforating its peritoneal coat or dissecting between the layers of its mesentery. The inflammation present may be of the simple, specific, or malignant variety.

Condition of the Appendix.—An abscess associated with appendicitis may be found to have tracked in any of the following directions: (1) Into the cellular tissue; (2) into the cæcum; (3) into the abdominal wall; (4) into the rectum; (5) into the uterus or its appendages; (6) into the bladder; (7) into the peritoneal cavity, either direct or after being first of all an abscess, shut off from the general peritoneal cavity; (8) through the sheath of the psoas muscle or opening up the iliac vessels; (9) through the sciatic or obturator foraminæ or through one of the abdominal rings; or (10) in the so-called extraperitoneal variety, that is, with a strictly localised peritonitis it may burrow up behind the colon and perforate the diaphragm, giving rise directly to pleurisy, pneumonia, or pericarditis. There is an intimate sympathy existing between the various synovial cavities and the peritoneum, and this is regulated by means of the blood, lymphatic and nervous symptoms controlling them.

In appendicitis with perforation into the general peritoneal cavity there is a tendency for the pus to gravitate to the most dependent parts (*i.e.*, into Douglas's or the recto-vesical pouch). In this variety the false as well as the true ligaments of the bladder are frequently involved.

The appendix may be (*a*) twisted upon itself or kinked, giving rise to mucocele, empyema, gangrene or perforation; (*b*) it may be the seat of one or more strictures, or may be partially or completely obliterated from old inflammation or ulceration, or (*c*) it may constitute an intussusception

(it may even be found completely invaginated), or may constitute a hernia, or part of a hernia, partial or complete; (*d*) it may be considerably elongated and lying in one of the following positions: (1) over the pelvic brim; (2) adhering to the abdominal wall or to almost any structure within the abdomen, or may be buried in the wall of, or intussuscepted into, the cæcum: (3) it may be the seat of embolus, thrombosis, tubercle, papilloma, sarcoma, carcinoma (primary or secondary), or of primary or secondary deposits of actinomycosis, or again of parasites or worms. Secondary deposits and degenerations are commoner than primary growths of the appendix. The tendency of any of these conditions of the appendix is to more or less obliterate the appendix.

In suppurative appendicitis, with perforation and acute diffuse septic peritonitis, the pus is very rarely found to extend higher than the transverse meso-colon.

Appendicitis may terminate in resolution, complex adhesions, suppuration (local or general), or gangrene, with or without perforation.

The termination of the suppurative or gangrenous varieties after operation may be (1) resolution; (2) recovery with adhesions; (3) fistulæ; (4) death from pyæmia, toxæmia, intestinal obstruction, lardaceous disease, acute yellow atrophy of the liver, and exhaustion.

Bacteriology.—Inflammation of the vermiform appendix is probably always due to bacteria. It is usually the result of a mixed infection and invasion from within the lumen whilst it is in a predisposed condition.

The *Bacillus coli communis* is constantly present, but except in diseased or damaged tissues, the vitality of which is lowered, its action is probably aseptic rather than septic. This bacillus is largely in excess of any other variety found, and is frequently the only one. In disease of the appendix the following additional varieties have been demonstrated: streptococci, staphylococci, diplococci, pneumococci, tubercle bacilli, leptothrix, saccharomyces, and some others.[1]

[1] Javel and Lanz, Leipzig, 1893. Lockwood, "Appendicitis," London. 1901.

Causes.—The causes of appendicitis may be simple, specific, or malignant. The exciting causes are numerous. Some of the commonest may be classified as indigestion, arising from any of the usual causes, cold, injury, foreign bodies, secretions, constipation (giving rise to pressure and tension, and to chemical irritation within the tube, thus lowering the vitality of the wall at that part, and making it the seat of invasion of the bacterium), diarrhœa, dysentery, typhoidal and tuberculous causes, and malignant ulceration (primary and secondary).

Concretions within the tube are commonly made up of phosphate of lime, carbonate of lime, of magnesium, bile salts, and organic matter mixed with fæces and teeming with mixed bacteria. They are of varying consistence. The nucleus is usually a hardened mass of organic matter, fæces and bacteria, often concentrically arranged, although occasionally it is a foreign body which has entered at the mouth of the tube or been forced through its wall, such as small pips, pins, shot, bits of bone, &c. The salts of the nucleus are often a deposit from a catarrhal exudation, as in the tonsil and nose, mixed with organic matter and bacteria, whilst the appendix is in a state of inflammation.

It is probable in a patient predisposed to an attack of appendicitis that movement of any kind will help to aggravate a local condition, and if appendicitis is present, that violent muscular movements from any cause may prove the immediate and exciting cause of rupture. This fact may account for the disease being commoner in the male than in the female, and in the young and active rather than in those past middle life. The worms and parasites found present are the usual varieties which infest the intestine of man. Rheumatism or gout sometimes invade the appendix vermiformis, but I venture to think this is very rare. Simple colic of the tube, neuromimesis, pyæmic, sapræmic or septicæmic conditions, or muscular rheumatism of the abdominal wall in the right lower quadrant of the abdomen, are probably commoner.

Symptoms and Diagnosis.—The symptoms may be divided into local and constitutional. There are three cardinal symptoms—pain, tenderness (superficial and deep), and

rigidity; two others are usually present, viz., fever and constipation. Diarrhœa sometimes takes the place of constipation. The intensity of the symptoms varies somewhat with the degree and variety of the inflammation, as in other parts, as well as with the structures implicated, unless the sensibility of the nerves of these structures has been destroyed or paralysed. The pulse may be considered as a far more reliable guide than the temperature in this disease. In diagnosis, the questions that present themselves are three in number: (1) Is this a case of appendicitis? (2) What is the probable condition of the appendix? (3) What degree or variety of appendicitis is it?

With regard to the first of these questions, the following diseases may have to be excluded by differential diagnosis, each condition mentioned having a specific history and cardinal symptoms of its own: (*a*) COLIC—intestinal, renal, hepatic, pancreatic, and splenic; (*b*) OBSTRUCTION—acute strangulated intestine, pseudo-strangulation, perforation of the gastro-intestinal tract, other than appendicitis, hæmatocele, parasites and worms; (*c*) if fever is present, typhoid fever, or pneumonia before consolidation; (*d*) intussusception or hip-joint disease in children; (*e*) a distended gall-bladder; (*f*) simple or specific inflammation of the colon, the cæcum, or the ileum.

In the chronic and relapsing varieties of appendicitis the following diseases more or less simulate appendicitis: tuberculosis of the cæcum, cancer of the cæcum, large gall-stones or enteroliths within the cæcum or ileum, psoas abscess, perinephritic abscess, diseases of the uterus, ovaries, fallopian tubes, or hip-joint disease, and also pseudo swellings.

Course and Prognosis.—The tendency of appendicitis is to recovery. Appendicitis may be so slight as merely to give rise to a feeling of discomfort, without even laying the patient up. On the other hand, it may give rise to all the signs and symptoms of acute septic peritonitis with complications and secondary deposits. Any intermediate stage may be met with. In appendicitis 5 per cent. of cases are fatal. With abscess it is about 30 per cent., but when surgically treated, is put as low as 4 per cent. by many authorities. Some of the most acute cases terminate fatally in from thirty-

six to forty-eight hours, more commonly about the end of the first week. In 50 per cent. of fatal cases death takes place within eight days. An ordinary attack of appendicitis lasts from seven days to three weeks. The variety of abscess with strictly local peritonitis when surgically treated offers a favourable prognosis. Operation should not as a rule be undertaken hastily, but each case should be treated on its individual merits, even when very acute physical signs and symptoms are present. Peace and rest should be encouraged within the abdomen both before and after operation. When the peritonitis is general, prompt action is needed, and except in the early stages, radical measures which will be described under treatment are imperative.

In about 8 per cent. of cases pus enters the peritoneal cavity by dissecting between the layers of the meso-appendix. During the progress of the disease, especially in the more serious varieties, general toxæmic symptoms are present.

Acetonæmia and nephritis are sometimes to be demonstrated. There is also evidence in some cases of pathological changes and secondary abscesses in other organs. Appendicitis co-existent with another disease, such as typhoid, dysentery, or tubercle, will usually have its symptoms somewhat masked by the greater invasion. Œdema of the right or even the left leg is sometimes caused by pressure, mechanical interference, and thrombosis, or is due to the weak condition of the patient and the septic condition of the blood; also there may be many other symptoms present common to sapræmia and secondary infection.

Treatment.—The general rules in the treatment of inflammation of the vermiform appendix are the same as those in the treatment of inflammation of other parts.

When appendicitis is suspected or diagnosed the patient should be placed at rest. Rest must be insisted upon and obtained.

The diet should be restricted, nutritious and spare, very little being given by the mouth.

In the mild degrees of appendicitis much may be done by gentle saline aperients and enemas, combined with rest and careful attention to digestion, and by giving such medicines as may appear necessary in each case to improve tone, diges-

tion and debility, and the specific, malignant, tuberculous or dysenteric varieties require specific medicinal treatment in addition.

The application of hot or cold fomentations and leeches to the right iliac fossa or at the seat of pain are sometimes of benefit, especially in the earlier stages of acute cases. The first stages of inflammation are often better treated by cold than by heat. A very mild saline aperient should be employed in the earlier stages, so as to clear out the intestine, and this should be followed by a simple enema. At the same time purgatives must be given with discretion and care. Dr. Osler says they should not be given. Dr. Deaver says the bowels should always be made to act if possible by aperient or by enema. If there is much distention, there should be added a little turpentine to the enema, and the rectal tube should be passed from time to time, great care being taken to disturb the patient as little as possible. When the diagnosis has been made out, a little opium may be given to relieve pain, anxiety and discomfort, either as an injection of morphia ($\frac{1}{6}$ of a grain) or in the form of the liquor sedativus (10 minims twice in the day), according to the amount of the distress. Opium or its derivatives in these cases is a very valuable friend, but a dangerous one, and must be given with care, the physical signs and symptoms being carefully watched. In most cases sedatives and narcotics are necessary during some part of the illness, either subcutaneously or by the mouth. If the symptoms are very acute no food should be given by the mouth, except a few spoonfuls of diluted milk (peptonised) or a little hot water or weak tea, to relieve thirst, the patient being fed by rectal enemata. No aperient should be given by the mouth at this stage for obvious reasons. The treatment should correspond to that for acute peritonitis. Many prefer to add a little antiseptic by the mouth, say salol, 10 grains twice or three times in the twenty-four hours if the bowels are acting. It is very doubtful whether sufficient antiseptic can safely be given by the mouth in appendicitis without being harmful to the patient. On this account many authorities prefer not to attempt to anticepticise the contents of the intestine. If stimulants are indicated they must be

given. They are probably best given either in the form of brandy, whisky or champagne, to be sipped slowly, or administered *per rectum.*

Cases of acute, chronic, relapsing, or latent appendicitis are best treated in this way, unless ultra-acute symptoms or special symptoms have presented themselves. It must be remembered that after repeated attacks recovery may be perfect, and that in any case operation is best performed after the acute symptoms have subsided.

Operative Measures.— The large majority of cases of appendicitis require no operative treatment. In ultra-acute cases, with probable gangrene or abscess, laparotomy should be performed early.

Operations for appendicitis do not differ in principle from other antiseptic or aseptic operations on the abdomen. Suppurative appendicitis, whether intra- or so-called extraperitoneal, call for immediate operative interference. The term extraperitoneal appendicitis is not strictly correct, except when the inflammation is limited to the lumen and coats of the tube; but by it I mean when the peritonitis is strictly local and the general peritoneal cavity is not involved, or is shut off by adhesions. In all cases of appendicitis Nature endeavours to localise and to limit the mischief by throwing up adhesions. In the so-called extraperitoneal variety the incision should be made as low as possible so as to avoid opening the general peritoneum, *i.e.*, half an inch above Poupart's ligament along its outer half, according to the point of maximum dulness and resistance, which may be decided upon after the patient is under the anæsthetic. Care should be taken not to extend the incision much above the anterior superior spine of the ileum. During the incision in the non-suppurative variety the muscular fibres are best separated by McBurney's method (that is, separating each muscle in the direction of its fibres), using the handle of the scalpel as much as possible for this purpose. In this variety many prefer the incision through the linear semilunaris or along the outer border of the rectus muscle, or about midway along the spino-umbilical line, part being above the line and part below it.

Appendicitis with intraperitoneal mischief and general

septic peritonitis requires very careful packing and sponging, so as to try to prevent more septic extravasation than already exists. The number of sponges and pieces of gauze in use must be carefully counted, both before and after an operation. In operating, after opening the peritoneum, probably the shortest guide to the appendix, whatever its position, is to follow the anterior longitudinal band on the front of the cæcum, but very often when searching for it the surgeon's finger is even more useful.

It is unnecessary to state that the intestines and adhesions should always be handled very gently, but if in spite of this a slight tear should occur, say in the cæcum, it should be immediately sewn up.

In early acute septic inflammation without suppuration an incision should be made and the appendix removed, and there should be a thorough sponging away of all septic material.

There are three varieties of abscess of the appendix, viz., (1) with strictly local peritonitis in which the pus is discharged outside the general peritoneal cavity; (2) involving more and more of the peritoneum, but still shut off from the general peritoneal cavity by adhesions; (3) discharging directly into the peritoneal cavity or else, after being of the so-called extraperitoneal variety, then entering the general peritoneal cavity. The first two varieties should be cut down upon, evacuated and drained efficiently, taking great care not to break down new and delicate adhesions. If in either of these varieties whilst operating the appendix is presenting itself in the wound, or easily accessible by very gentle manipulation, tie and remove it, but if not do not break down Nature's adhesions in searching for it during the acute stage. It will either slough away or become obliterated after efficient drainage and rest.

The third and most fatal variety occurs often after a few days' delay or when the peritonitis is very acute from the first, and is probably best treated by the radical method recommended by the late Mr. Walsham in his excellent work on appendicitis, and which operation I will now proceed to describe.

An incision is made over the seat of the appendix and it

is removed. An incision is then made at a point midway between the ensiform cartilage and the umbilicus and carried as far as the pubes. The intestines are then turned out and cleaned, being kept by an assistant at the body temperature by the application of hot sterilised towels. With the intestines thus turned out the peritoneum can be thoroughly flushed and sponged free from all pus and extravasated fluid, especial attention being paid to the recto-vesical pouch, Douglas's pouch, and other *cul-de-sacs* of the abdominal cavity. When every visible particle of septic material has been removed we have next to deal with the intestines. When they have been flushed and sponged, incisions should be made into the distended coils in sufficient number to empty them of gas and liquid fæces and the peritoneum should then be united by Lembert's method.

The intestines are then returned into the abdomen, a drainage tube is inserted at the lower part and the abdominal wall is sewn up with silkworm gut. Shock should be counteracted by the usual methods as far as possible, *i.e.*, the limbs should be wrapped in cotton wool and the operation should be performed on a hot water bed or table.

There are other authorities who even in this variety advocate a simple incision and drainage by one of the usual methods, hoping for the best and trusting to the self-preserving and resisting power of the tissues. No doubt in many cases, owing to the condition of the patient, this is all that it is advisable to attempt.

Amputation of the appendix in these cases is sometimes easy and sometimes difficult or impossible, on account of extensive adhesions. When a second or third incision has to be made, the first should be closed with gauze and collodion flexile after sewing up.

Amputation of the Appendix.—There are many methods for removing the appendix vermiformis, according to the extent of the inflammation. It is quite probable that when the base of the appendix is in a fairly healthy condition tying it with a simple catgut ligature and snipping it off would have the desired effect. But when the appendix is septic or the cæcum is in a state of very low vitality or gangrenous, then special methods must be adopted.

I will now describe the method recommended by most authorities. The appendix should be clamped three-quarters of an inch from its base. The first incision should be made through the serous and part of the muscular coat; this is turned back and the stump is then clamped and the remainder is cut through; the end of the stump is then touched with a wooden match dipped in carbolic acid or cauterised; the clamp is then released and the flap turned over it and sewn up. A little graft of omentum may be sometimes placed over the stump with advantage. If the base of the appendix and a portion of the cæcum are gangrenous, this portion of the cæcum with the appendix should be cut out, the walls of the cæcum should then be slightly turned in and sewn up by Lembert's suture. Extravasation may frequently be prevented by closing the orifice before amputating, either by a purse string suture or by a clamp. If the base of the appendix is fairly healthy, but the appendix is sloughing or gangrenous, it should be tied with catgut and nipped off with the scissors. An india-rubber tube of large size is then passed to the bottom of the cavity in suppurative cases, and in non-suppurative cases the wound is closed.

The cavity in suppurating cases is probably best drained by suction, *i.e.*, passing a smaller tube attached to a syringe to the bottom of the larger one and then drawing off the contents and repeating the proceeding at each dressing, combined with the careful placing of strips of gauze. Drainage by suction has the disadvantage of making us considerably dependent on other people. All tubes, syringes, ligatures, &c., should be kept in 1 in 20 carbolic solution. The after-treatment is similar to the after-treatment of other abdominal operations, except that in the gangrenous and perforative varieties of appendicitis with peritonitis, the cavity is difficult to drain efficiently, and irrigation must be almost limited to cleansing of the tube and the superficial parts.

The sinuses and fistulæ remaining in these cases exhibit a tendency to close spontaneously in time, but are usually very slow and difficult to heal. If the skin wound is allowed to close too quickly or the fistulæ do not heal from the bottom after fair trial, explore and refresh the edges of the sinus or the sinuses, at the same time cutting through any adhesions that may be necessary.

There are a few cases on record where enterostomy or even cutting out the cæcum or other portions of the intestine become necessary.

In the relapsing variety of appendicitis we cannot be guided by rule alone, but operation is, perhaps, best performed after the first, second, or third attack, in the quiescent period for preference, unless ultra-acute symptoms suddenly supervene, in which case operative measures should be undertaken at once.

Conclusions.—(1) That as appendicitis is essentially protean and the more serious cases cannot be anticipated, it would not be justifiable to open the abdomen in all cases of appendicitis, simply on the possibility of their becoming of the ultra-acute variety. Statistics show us that the death-rate from all varieties of appendicitis without operation is about 5 per cent., and that operation during the acute stage is attended with a mortality of over 20 per cent.

(2) The exploring syringe has been used with considerable success in America, but in the ultra-acute cases, owing to the usual septic condition of the parts and the depth of tissue, as well as to the possibility of missing the pus, a laparotomy would appear preferable and is usually practised in this country. The exploring syringe is no doubt of use in a few cases.

(3) In a paper published by me in the *Lancet*, September 21, 1901, I advocated that in addition to making the counter opening in the loin, or in the female behind the cervix uteri, for purposes of efficient drainage I was of opinion that aspiration, or a small counter opening *per rectum* when the pus was collected in this locality, was in suitable cases of value. Since that time I have had the pleasure of reading in this Society's Journal that the peritoneum had been successfully washed out and drained *per rectum*, in some cases of ultra-acute appendicitis, in America. There are also some recorded cases of simple appendicular abscess successfully treated by way of the rectum.

I was prompted to make the suggestion after repeated experiments in the dead-house, owing to the difficulty I experienced in draining successfully and efficiently in these ultra-acute cases.

(4) It is well to remember in making incisions when peritonitis is present: (*a*) That the peritoneum is injected or of a dull red colour and is often as much as half an inch in thickness. (*b*) That adhesions are best divided and not torn through. (*c*) That the visceral and parietal layers of peritoneum are usually adherent. (*d*) That the small intestines are often glued together and if opened by accident they should be united by Lembert's sutures. (*e*) That the bladder is sometimes dilated and adherent. (*f*) That each piece of omentum is best transfixed and tied at both ends. (*g*) That if the whole appendix cannot be removed owing to adhesions, try and dissect away part of it, if you have decided to attempt removal. (*h*) That the amount of pus present in perforation cases varies from a few drachms or ounces to as much as a couple of pints or even quarts. (*i*) That 70 per cent. of cases of appendicitis get well on careful medicinal treatment alone, and that although a new set of false teeth and regular and careful attention to digestion, to the bowels and to diet, have sometimes warded off relapse, that gangrenous appendicitis may occur in upwards of 15 per cent, of cases; and (*j*) that all cases of appendicitis may develop into the ultra-acute variety requiring surgical treatment, but that the tendency of appendicitis is to recovery.

ON BOLDNESS IN THE TREATMENT OF HEART DISEASE.

By Alexander Morison, M.D., F.R.C.P.

Physician to Out-Patients at the Great Northern Central Hospital; Physician to the Children's Hospital, Paddington Green.

I had prepared a fuller paper dealing with the principle of boldness in the treatment of heart disease, which I had hoped to have had the honour of reading before this Society; but found that it had attained dimensions which would have rendered its exposition and discussion a difficult matter, when we had also before us other interesting material. I have therefore had to recast my paper and select a portion

dealing with the salient principle, which I desire to emphasise this evening. I consider myself fortunate, however, in following a consideration of the important subject of appendicitis, which modern surgery has learnt so well to treat by a boldness of method which would have made the practitioner of that art at no very distant epoch stand aghast. We do not require to be septuagenarians to remember the opium and poultices which played so large a part in the expectant treatment of peritonitis, whether due to appendicitis or any other mode of invasion of the peritoneal cavity. All that has, fortunately, been changed, and if the surgeon does not even now always succeed, and we know he never will be able, invariably, to save the life of his patient, he does so in numerous instances in which life would formerly have been lost, and this, largely in proportion to the earliness with which the essential features of the disease are recognised, and its treatment undertaken by bolder methods. How does this apply to the subject now before us? Appendicitis is, as we know, only one of several causes of an ultimate possible peritonitis. Serious cardiac failure may also be brought about by various primary causes, affecting one or other or one or more of the four factors in cardiac action, namely, the neural, muscular, hæmic, or purely mechanical factors, and I purpose now saying a few words on a boldness of treatment in cardiac failure, chiefly expressed by inefficiency of the muscular factor, which is in some measure comparable with the boldness of treatment which characterises the action of the modern surgeon in dealing with appendicitis and its complications.

A patient is before us with the evidences of progressive cardiac failure. He is dyspnœic in various degree, his cardiac area of percussion dulness is increased, he shows the evidences in the heart, and it may be in other organs, of the effects of a residual accumulation of blood within the chambers of the heart, right or left, or both right and left. We put him to bed, unload his primæ viæ, take into consideration his age, and the general state of his vessels and other organs, as well as the particular condition of his heart endocardially, myocardially and pericardially. Finding, as we unfortunately do in many cases, that rest, dietetics, and general

care have, unaided, little effect on his state, we try the influence of small doses of the infusion or tincture or powder of the well-known pharmacological antagonists to cardiac dilatation and imperfect systole, or combine these, under certain circumstances, with mercurials, neural stimulants, or more powerful vaso-motor agents such as the nitrites. Fortunately, in many instances, these measures are soon successful. Not every abdominal case comes to laparotomy; nor does every cardiac case require a bolder method of control. But, on the other hand, many cases, unfortunately, *do* require such treatment, if they are not to be allowed to drift into hopeless failure. The danger *then* lies, as in abdominal cases, in delay, with merely palliative treatment and the Micawber-like expectancy of something beneficial resulting from a timid use of agents and a plaintive hope in the recuperative powers of Nature. A large majority of the cases of which I speak are met with in people either young or in the prime of life. The vessels are pliant, the reserve force of the patient is commensurate with his development and age, but the golden bowl is broken at the cistern, and the silver cord is in imminent peril of being loosed, unless we can effectively come to the aid of the labouring heart and surcharged venous system. How are we to do this? How is the patient to be prepared for the action of an agent which, held by the physician in a vial, is as powerful for good and for evil as the knife which the surgeon holds in *his* hand? The vascular system of the patient must be relieved of a certain quantity of blood if necessary, varying from 4 ounces to half a pint by venesection, which, for reasons we cannot consider now, is more effective than leeching; his anasarcous limbs must be drained by Southey's tubes, or by incision; fluid effusion hampering respiration in chest or abdomen must be removed so far as possible, and all this, not with any great expectation of these measures being successful in themselves, although this is not impossible, but to prepare the medical patient, as the surgeon prepares the surgical patient, for the use of the powerful agents which the physician has at his command. These are digitalis, or its congeners in action; and of these, I think, we shall all agree, that digitalis itself and strophan-

thus are the most useful, as they are also the most powerful, and that the tinctures of these, which contain all the active principles of the plant, are the most efficient, as they are also the least irritating preparations of the drugs, in cases suitable for the method I am about to describe. Small doses, then, in the majority of cases have previously been tried in vain; so far as we can determine, the vessels in the case before us are sufficiently normal; and the heart itself is untethered by firm extraneous adhesion. The drug is then given in 15, 20, 25, or 30 minim doses in the adult at intervals of four hours, until a definite effect is produced upon the action, force and capacity of the dilated and failing heart. This may require the continuous administration, in such doses, of the combined tinctures of strophanthus and digitalis, until 200 to 300 minims have been taken. The patient may feel a little nausea at the end of the course, but his labouring heart may be acting slowly, smoothly and with increased force, and the patient himself experience a relief to which he has been a stranger for weeks. This effect may be permanent or it may be transient. The physician is not always successful any more than the surgeon. But both may have worked for and merited a success which they cannot always command. Man is mortal. In laying emphasis on this principle of boldness in the use of the digitalis group under appropriate circumstances, I am quite aware that I am not inculcating precisely a *new* doctrine, for it is as old as Withering, who first used digitalis with success in certain dropsies, of the organic cause of which he was ignorant, and it has been taught with no uncertain voice by others, and, notably in recent times, by the late Dr. George Balfour, of Edinburgh. But I defy anyone to say that it is not a doctrine which has been preached in large measure to deaf ears, and we still find Dr. Micawber, whether specialist or generalist, tinkering from week to week with doses and methods which are as likely to affect the action of such a heart as, to use Sidney Smith's simile, tickling the dome of St. Paul's is likely to convulse with laughter the Dean and Chapter of that celebrated fane. One reason for which this bolder method of treating ingravescent cardiac failure has met with less recognition from

the profession than it is, in my opinion, certain, sooner or later, to secure, is the want of precision in the instructions given by those who have used it, in the preparation of the patient and his management during the period of treatment. It must be admitted that this method is more conveniently carried out in hospital than in private practice and for obvious reasons. The family physician, with the difficulties of whose position I fully sympathise, having been one myself, from the multifarious calls made upon his attention, his time, and his strength, may find it, for geographical and other reasons, difficult to supervise and carry out all these manœuvres with the care and closeness of observation which they require. But, if it be the right course to take, and experience has convinced me that it is; under the circumstances I have briefly sketched, is the patient to be accommodated to the convenience of the practitioner, or must the latter accommodate himself to the needs of the patient? This question requires no answer. Let the practitioner, therefore, have a trustworthy assistant, or send his patient, rich or poor, where the method can be efficiently, and as safely as possible, put into execution. The hospital exists for the sick poor, the home for the sick rich who cannot, in the opinion of their medical advisers, be conveniently treated elsewhere, and their doors are open not only to grave surgical cases, but also to grave cases of heart disease if need be. But, as a matter of fact, it is quite within the power of the practitioner to supervise his case sufficiently, if he be provided with good nurses.

In an age of baths and exercises and foreign travel—all of which are very suitable for minor degrees of cardiac failure, or after established convalescence, I am aware that it will take some time to drive home to the public and, if I may say so, with all due deference, to some sections of the profession also, the necessity or desirability of such boldness in the treatment of heart disease as I have described. But, I believe, the days of Dr. Micawber's influence in this sphere are numbered, be he consultant or general practitioner, and that a few years will find these views generally accepted and acted upon. The task of testing the value of this bolder method, however, and the education of the public to an

admission of its necessity, which is commensurate with its gravity, lies largely in the hands of him who comes first in contact with these cases, namely, the general practitioner of medicine, who has already been the successful, because convinced, missionary of the necessity for boldness in the no more and no less important field of abdominal disease. " But," it may be asked, " is there not an element of unjustifiable risk in this rapid method of obtaining cardiac control ? " I answer, No ! provided suitable cases be selected for submission to it, and the effects of the drug be carefully watched, as is quite possible, provided sufficient skilled supervision be exercised. I shall, however, answer the question also by asking another. Has the surgeon alone a prescriptive right to assume responsibility and take risks in the attempt to save life ? It may be contended that the cases are not parallel and that the surgeon operates, when operation may not be free from danger, to restore diseased parts to a normal condition or to a condition compatible with long life, and that he has more control over the means he employs ; whereas the physician is dealing with an already diseased organ, which cannot be expected to be wholly restored to a normal state, and lets loose forces which he cannot control so well. So much may be granted, but the physician's action, if successful, may restore comparative health, it may be for years or for a period very beneficial to the patient and those dependent upon him, while the control of his agent merely requires skill and carefulness. The only alternative, moreover, is, in the majority of the cases in which the method is applicable, to stand aside and watch the patient slowly or suddenly die, or to play with remedies in an ineffective and irrational manner and in the fatuous hope that the *vis medicatrix naturæ* may, in some inexplicable manner, come to the rescue. Such a course I submit is neither fair to the patient nor becoming in the educated physician. But it is unnecessary to labour this point further, for the anæsthetist must, I presume, be regarded as a physician rather than a surgeon, and he daily administers an agent at considerable risk, and sometimes with a fatal result, which is justified by his attempt to spare the patient pain and shield him from shock under surgical procedures, at times still more dangerous than the

anæsthetic. The method of obtaining rapid control of the heart in cardiac failure is justified on the same grounds as the action of the surgeon, namely, the attempt to save life, while the risk the physician assumes in this matter is not greater than that assumed by the anæsthetist daily, and, indeed, not so great. But the capable anæsthetist keeps a sharp eye on his patient's condition while submitting him to the drug, and the physician who undertakes the rapid control of the failing heart must do so likewise. There are many important considerations which one is tempted to touch upon in connection with this theme, but the time at our disposal precludes the adequate discussion of these, and it would, indeed, take more than one evening to do the subject even scanty justice, for it would involve a consideration of many points in the etiology and diagnosis of heart disease. My object will, however, have been attained, if the few remarks I have made will cause members of the Society to reflect whether a bolder use of the powerful agencies we possess would not, in certain cases of cardiac failure, be productive of more good than the timid process which we have all known to be unsuccessful so frequently.

A NOTE ON THE THERAPEUTIC VALUE OF MUSK.

By F. Graham Crookshank, M.D.Lond.

At the present time, when so much attention is directed towards the pharmacological action and the therapeutic virtues of organic substances, it is well to recollect that there are agents of this class now little used or esteemed, which once had to commend them the almost unanimous appreciation of intelligent clinicians. Of these therapeutic agents musk is one. Formerly in the highest repute, now it is hardly alluded to in text-books, and any mention of it is cursory, formal and perfunctory.

Goodhart, it is true, has recently extolled its advantages in certain cases of specific infection, but he has stood almost alone in doing so.

In a case recently under my care the exhibition of musk

at a time when the death of the patient was momentarily expected had, in the opinion of all who witnessed it, such striking results, that a brief account may be not unworthy of attention.

A healthy young man, aged 19, was, after several days of ill-ease, suddenly struck down with headache, vomiting and nervous agitation. I saw him within a few hours and found him very ill. The temperature was 102·5°; the fauces glazed and œdematous, but without exudation; the tongue dry and brown; the eyes suffused and the conjunctivæ intensely injected. There was a faint roseola on the chest and belly and thighs. Twelve hours later the temperature in the axilla was 105°; the pulse was 130. Diarrhœa had set in; epistaxis was frequent. There had been no sleep, and the mental attitude was that of extreme restlessness with confusion. In the evening of this, the second day, the temperature was 106° and the rash was intense. The diagnosis was, obviously, toxic scarlet fever. On the third and succeeding days there was no improvement. The temperature it is true, was, by sponging, abated a degree or so, but the pulse was 150 and very weak. The epistaxis continued and both hæmatemesis and hæmoptysis set in. Diarrhœa and vomiting persisted; large doses of paraldehyde failed to induce sleep, and the mental agitation gave place to such raging delirium that three nurses could hardly restrain the patient.

On the fifth day death appeared to be imminent. The maniacal excitement had given way to muttering delirium, which was in turn succeeded by coma vigil. Urine and fæces were passed involuntarily; hiccough, carphology and subsultus tendinum were continuous; the tongue was black and swollen; the skin was dusky and dry. Finally Cheyne Stokes' respiration was observed and became gradually more marked. Every advantageous form of stimulation and nourishment had been tried; drugs had appeared useless; wet-packing had failed, and the ministrations of skilled nurses had proved in vain. At what was thought almost the last moment, some musk was procured and administered in doses of 4 to 6 grains every two hours. To the astonishment of everyone the patient held his own, then slept a

little, the evidences of nervous prostration became less marked, and in forty-eight hours there was an obvious change for the better. The use of the musk was gradually discontinued. Seven days later the fever had almost vanished, and after a tedious convalescence the patient became quite well. It was impossible to doubt that the musk had saved his life.

It appears from considerable experience that musk is of benefit, not in every severe case of acute specific infection, but when the symptoms are chiefly due to the intense action of toxins on the central nervous system and, as in the instance just related, death appears likely from the destruction of the functions of the medulla oblongata. It is of no use giving musk, as I have known it given, in typhoid fever with perforation, hæmorrhage or pneumonia; it is of little use in the *septic* kinds of scarlet fever, and it is not called for in diphtheria when antitoxin has failed to abate the local spread of the disease, but I know it to be an unrivalled drug in pure cases of acute specific toxæmia with especial incidence of the poison on the central nervous system.

I have on several occasions seen remarkable results from the use of musk in other cases—those in which there are aberrations of the nervous control of the vasomotor system, but do not propose now to allude to them.

A word or two relating to the drug itself may be permitted. Musk is said to be "the dried secretion from the preputial follicles of '*Moschus moschiferus*,'" and is described as occurring in "irregular brownish grains contained in an oval sac about two inches in diameter, smooth on one side and covered on the other, outer side, with bristle-like hairs arranged concentrically around a central orifice." *Moschus moschiferus* is the true or Chinese musk-deer and is found only in Central Asia.

The "oval sacs" commercially known as "pods" are, I am told, the preputial folds as removed by the native hunters. These pods arrive in this country through the Chinese trade, packed by twenties in carved wooden "caddies." On account of their considerable value the pods are entrusted by the firms to which they are consigned or sold to responsible persons for preparation, and these persons have to account very strictly for the quantity given them. The pods are

opened with fine scissors and the large grains are shaken out and carefully collected. These large grains represent the highest grade of musk. Next, the pods are stretched out and carefully scraped with a fine knife. These scrapings constitute the second grade of commercial musk. Lastly, the pods themselves are finely chopped or minced, providing thus the third grade of musk, used I am told, by the perfumers in " fixing " perfumes.

On account of the high commercial value (£5 a drachm) of the best musk, there is obviously great temptation for the sale, in substitution, of the second and third grades.

It is the best musk only that should be used therapeutically. It must be given in adequate doses (5 grains every two hours is not too much for the effect is transitory, owing, I suppose, to the rapid destruction or physiological neutralisation in the body of the active principle.

It is difficult to explain the therapeutic value of musk, but one may suppose that the volatile aromatic substance, which, although of unknown chemical constitution, is believed to be the active principle, has, when conveyed by the blood stream, an action on the nerve cells of the lower brain, either directly stimulant or else antagonistic to the products of the specific microbes; or it may be that the active principle of musk has some power of directly fixing or rendering inert bacterial toxins; that it is, in fact, a natural and non-specific antitoxin.

It is convenient to have musk prepared for administration in silver-coated pills made up with sugar of milk. These pills, which have been prepared for me by Messrs. Martindale, keep well, and may be crushed and placed in the mouth as required.

I would repeat that if musk is to be usefully employed it should be given only in the class of cases indicated, and must be of the finest quality; it must be given at frequent intervals, and by a hand that is not niggardly in either a therapeutic or financial sense.

Report of Proceedings.

ORDINARY MEETING.—October 2, 1903.

SEYMOUR TAYLOR, M.D., F.R.C.P., President, in the Chair.

THE following gentlemen were elected members of the Society: Leonard Stanley Dudgeon, M.R.C.P.Lond., M.R.C.S.Eng., 6, Powis Gardens, Bayswater; Hugh Meredith Speirs, M.B., B.Ch.Edin., Haltwhistle, Northumberland; William Frederick Parmer, M.B., C.M.Glasgow, 2, Linden Gardens, Notting Hill Gate; Henry Barnes, M.B.Lond., 194, Hammersmith Road; E. B. Reckitt, M.D.St. Andrews, L.R.C.P. and S.Edin., Boston, Lincolnshire; R. Hamilton, Bell, M.B.Cantab., M.R.C.P., 26, Upper Wimpole Street, W.; Frederick Richard Wainwright, M.D.McGill, M.R.C.S. Eng., L.R.C.P.Lond., 47, Kensington Park Gardens, W.; A. W. Mayo Robson, F.R.C.S.Eng., L.R.C.P.Lond., 8, Park Crescent, Portland Place, W.

THE PRESIDENTIAL ADDRESS.

The PRESIDENT delivered his address entitled, "Milestones in Medicine," which was published in full in the October number of the JOURNAL.

THE VOTE OF THANKS.

Dr. CLIPPINGDALE: I beg your permission, Sir, to allow me to ask the other members of our Society, who have had the pleasure with me of listening to your address this evening, to offer you an expression of our appreciation and thanks. Departing from the usual custom of selecting a scientific matter as the subject of the inaugural address, you have taken us into the fascinating realm of medical history and discovery. This subject is one which seems to have been curiously neglected in this country. On the Continent and in America there are, in some of the universities, chairs of medical history, and in some of the cities, societies for the study of the same subject. But in Great Britain, to which the whole world is indebted for such important matters as the discovery of the circulation of the blood, the invention of midwifery forceps, the cure of aneurism by ligature, the prevention of small-pox by vaccination, and the saving of

thousands of lives yearly by antiseptic surgery, no trouble whatever is taken by any of our universities, medical schools or medical societies, either to instruct the student or to keep alive in the memory of the practitioner the great work which has been performed by our forefathers in conferring such boons upon suffering humanity. Your address this evening may lead, I venture to hope, to a remedy for this deplorable oversight. I beg to propose, Sir, that the best thanks of this Society are due, and are hereby tendered to you for your learned, interesting and eloquent address.

Dr. J. B. BALL: I have great pleasure in seconding the vote of thanks proposed by Dr. Clippingdale. I think it can be safely said that this address has been listened to with unusual interest. The subject was well chosen and ably handled, and moreover, it was lightened here and there by those touches of humour with which Dr. Seymour Taylor knows how to diversify a serious subject. I wish to take this opportunity of congratulating Dr. Taylor on his accession to the Chair of this Society. One can only wonder that he has not attained to the position before now. We all feel confident that he will make an exceptionally good President, and I venture to predict that his year of office will come to be looked upon as one of the " milestones " in the progress of this Society.

CLINICAL MEETING.—Friday, November 6, 1903.

Dr. SEYMOUR TAYLOR, President, in the Chair.

The following gentlemen were elected members of the Society: John Atkins, M.B.Lond., F.R.C.S., 59, Addison Gardens, Kensington, W.; Percival G. A. Bott, M.B.Lond., F.R.C.S.Edin., M.R.C.S., L.R.C.P., 17, Southwick Street, W.; Hedley Ormonde Butler, M.B., B.C.Cantab., 26, Grove Park Gardens, Chiswick, W.; William R. Carter, M.B., C.M.Edin., 155, Uxbridge Road, W.; Francis W. Clark, M.D.Dunelm, D.P.H.Camb., M.R.C.S., L.R.C.P. 35, Stanwick Mansions, West Kensington, W.; Simon J. C. Fraser, M.B., C.M.Aberdeen, Upington, Gordonia, Cape Colony; William Harland Peak, M.D., B.S.Dunelm, M.R.C.S., L.R.C.P., 11, Platt's Lane, Hampstead, N.W.; Edward Norman Tilly Rogers, M.R.C.S., L.R.C.P., 7, Linden Gardens, Chiswick, W.

Case of Chronic Suppuration of both Frontal, Ethmoidal, Sphenoidal and Maxillary Sinuses; Cured by Radical Operation.

Dr. HERBERT TILLEY: Miss H., aged 41, had suffered from a profuse purulent discharge for about ten years. It followed upon an attack of typhoid fever. During the past five years headache had often been so severe as to preclude the performance of her duties as a professional nurse, while mental apathy and the inability to concentrate her mind upon her work had been a more or less constant symptom. During this period polypi had on several occasions been removed from her nasal cavities, but this had no effect upon the purulent discharge from the nose. On January 12, 1903, I operated upon both frontal sinuses by completely removing the anterior wall, curetting away the polypoid pyogenic membrane, and making a large opening into the nose by way of the fronto-nasal canal. The cavities were then allowed to granulate up until they were completely obliterated. The ethmoidal and sphenoidal cavities were also dealt with at the same time by curettage. On January 28 the maxillary antra were dealt with by a large opening (as large as a sixpence) into the canine fossa, the diseased contents curetted away, and the sinus cavity mopped out with chloride of zinc solution, grs. 40 ad ʒi., and then tightly packed with cyanide gauze for forty-eight hours. The gauze was removed at the end of this period and not reinserted, the antral cavities being only irrigated with warm boracic lotion, dried, and left alone. No opening was made from the antra into the nose. The healing process was carefully watched, and just before the opening in the canine fossa closed it could be easily demonstrated that the antral cavity was practically full of organising granulation tissue, which almost completely filled the original sinus cavity. The patient has now been absolutely free from any discharge for seven months, her general health is better than it has been for years, and she has put on 17 lb. in weight since the purulent foci were removed. It is surprising and very satisfactory to all concerned that so little scarring over the frontal sinuses remains—in fact, it would be impossible without the closest scrutiny to say that any operation had been performed upon the right side.

Dr. SEYMOUR TAYLOR: The great interest in the first case, apart from the extensive and general suppuration of the accessory nasal sinuses, is its association with enteric fever. This fever, putting aside the complications due to the intestinal lesion, is perhaps the one *par excellence* in

which complications may be extremely varied. Any latent disease may be started with activity, so that practically almost any complication may occur, although I confess that my memory does not recall any case having the complications in the nasal sinuses which have occurred in Dr. Herbert Tilley's case.

Mr. G. A. GARRY SIMPSON: I congratulate Mr. Herbert Tilley on the happy result of his operation. We know that the typhoid bacillus is found in the blood by the second week, shown by urine, spots, and enlarged spleen. Does Mr. Tilley think the typhoid infection may have anything to do with starting the suppuration in the accessory sinuses, independent of a lowered vitality? I surmise after entering the antrum through the canine fossa Mr. Tilley curetted before packing. The mucous membrane in the antrum is corrugated, and when once pus organisms get a footing with unhealthy granulations it is quite useless to expect a favourable result without thorough curettage.

Dr. TILLEY: The suppuration was probably not started by the typhoid bacillus. Probably the antra were suppurating before she suffered from enteric, and then the low state of health induced by that disease brought about a rapid infection of the other accessory cavities. In most cases the antra were first infected by diseased teeth, and the infection of the higher sinuses followed upon that of the lower (antra). In these chronic cases drainage is absolutely inefficient, the diseased mucosa must be removed, and replaced by a new and healthy lining, or the cavity diseased must be entirely obliterated, or, what comes to the same thing, filled by organising granulative tissue.

Case Illustrating an Operative Procedure for the Relief of almost Complete Adhesion between the Soft Palate and Posterior Pharyngeal Wall, the Result of Tertiary Syphilis.

Dr. HERBERT TILLEY: Patient is a female, aged 23, in whom the aforementioned adhesion was so complete that only a small probe could be passed from the oro- into the naso-pharynx. The condition had been three times operated upon before coming under my care, but in no case, as far as I could gather, had any means been taken to prevent readhesion of the parts. The symptoms complained of were a collection of mucus in the nasal cavities, which continually ran from the nostrils, inability to breathe through the nose, snoring, and other local discomforts.

Operation.—In order to better deal with any profuse

hæmorrhage which might occur, a preliminary laryngotomy was performed (this proved to be unnecessary, and I should not resort to it in another case). The adhesions between the palate and pharynx were then completely divided, and a strong silver wire was passed from before backwards through the soft palate, close to its junction with the hard palate, and about half an inch from middle line. The distal end of the wire was then made to repierce the soft palate close to its free margin and from behind forwards, so that a short segment of the wire rested on the posterior surface of the soft palate. The free ends of the wire were then passed from behind forwards, one upon each side of the root of the incisor tooth, firm traction exerted on the palate, and the wires twisted upon one another and cut off short in front of the tooth. A similar procedure was then adopted on the other side of the palate, the wires cut out in about a fortnight; but by this time the raw surfaces (corresponding to the previously adherent areas) had become practically covered with epithelium, and hence no readhesion took place. The operation was done ten months ago, and the patient still remains with a large opening into the naso-pharynx. The operation is a modification of one described by Mr. W. Spencer.

Mr. McAdam Eccles: I should like to know from a point of view of general surgery how Dr. Tilley treated the preliminary laryngotomy wound. In a case, which I lately published in the Journal, where the removal of a thyroid tumour necessitated a tracheotomy during the operation, I carefully sutured the opening in the trachea with fine silk, and completely closed the wound in the skin. The parts healed by primary union, without any respiratory trouble, and the patient left the hospital within a fortnight.

Dr. Tilley: I closed the laryngotomy wound at once, but for some reason air entered the tissues of the right side of the neck and face and produced emphysema, which lasted some seven or eight days. In Mr. Spencer's cases he had considerable difficulty with the hæmorrhage from the adhesions, and it was to prevent blood getting into the lungs that I did a preliminary laryngotomy and placed a sponge above the larynx.

Dr. E. Furniss Potter: I congratulate Dr. Tilley on the excellent result he has obtained. I take a special interest in this case, as I had the opportunity of seeing it when it was shown at the Laryngological Society in March last. The operation had then been performed six weeks. On that occasion one of the members expressed the opinion that

recontraction would take place. That is now eight months ago, and when I saw the patient again this evening I did not observe any tendency to recontraction. It would be interesting if Dr. Tilley would show the case to this Society again, say a year hence.

A Case of Radical Mastoid Operation.

Dr. FURNISS POTTER: At the June meeting of the Society I showed a case of radical mastoid operation, as an illustration of the advantage of skin-grafting in conducing to rapidity of healing. The interest in the case I am showing to-night is that healing was rapid, although no grafting was done, and in spite of a severe attack of erysipelas. The necessity for operation was rendered urgent by an acute attack, which supervened on a chronic suppurative middle ear disease in a girl, aged 14. There was nothing unusual about the operation, except that it was performed with the greatest ease. The outer bony wall of the antrum being quite soft, it was only necessary to remove the *débris* with a sharp spoon, a chisel being hardly required. The case did perfectly well until the eighth day after the operation, when the temperature suddenly rose to above 103°, with symptoms of tonsillitis, swelling of the submaxillary glands, swelling and redness of the neck, which rapidly spread on to the face and scalp, exhibiting the appearance of a typical erysipelas. The attack lasted eighteen days, during nearly the whole of which time the patient was delirious. On the eighteenth day after the onset of the erysipelas the temperature came down to normal and did not rise again. The patient made an uninterrupted recovery, and two months after the operation healing was complete, the bony antro-attico-tympanic cavity showing no sign of discharge. There was no evidence of the erysipelas being due to wound infection, and to all appearances the wound was not affected by the attack. To make it clear (to those who may not have given much attention to the subject) that two months is a short time in which to obtain healing after a radical mastoid operation has been performed, and in which the skin-grafting procedure has not been adopted, I should like to quote from Ballance's paper in the *Lancet* of April 11 of this year, in which he says that after visiting several continental clinics, he came to the conclusion that in the majority of cases the treatment, *i.e.*, by tamponing, had to be continued for six or seven months. The case I have shown to-night I look upon as an exceptional one, and have no hesitation in expressing the opinion that in the larger number of cases, skin-

grafting the bony cavity very markedly reduces the time of after-treatment, healing taking place as a rule in as many weeks as it takes months to accomplish in the cases where grafting has not been resorted to.

Dr. HERBERT TILLEY congratulated Dr. Potter on the result of his treatment of the case, and thought that such cases amply proved that skin-grafting was not necessary in all cases. When the tympano-attico-mastoid cavity was a small one there was sufficient epithelium in the surrounding parts to ensure a perfect epidermisation of the internal wound caused by the operation, and with careful after-treatment the case could be considered complete in from five to eight or nine weeks. On the other hand, skin-grafting was an invaluable method in cases where the complete mastoid operation left a large bony surface to be covered, for if the natural process of healing were not artificially assisted a granulation surface would inevitably remain and as certainly cause protracted suppuration.

Case of Sarcoma of the Os Pubis.

Mr. MCADAM ECCLES: I have ventured to bring forward this case because of its rarity. It is a girl, aged 11. Four months ago she first noticed a pain in the right leg, chiefly in front of the knee. At that time there was no swelling in the abdominal region. When the swelling appeared an operation was advised, but refused, and the tumour has rapidly increased in size. Her present condition is that of a fairly well-nourished child, able to walk and stand without discomfort. She has marked nystagmus of both eyes. In the hypogastric region there is a large swelling, globular in form, hard, fixed, and somewhat overlapping the body of the os pubis, and there is a softer part to the left. The inguinal glands are enlarged. There has been no trouble with micturition or defæcation, which is a matter of some interest. *Per rectum*, the uterus is displaced backwards, and projected against the anterior wall of the rectum. A bladder sound has not been passed. The temperature has remained normal. The tumour is of such a size that I fear operative procedure is entirely out of the question, and treatment by Coley's fluid has not been sufficiently satisfactory in my hands to encourage me to use it here. Of serum treatment I have no experience.

A Case of Rickets with Anæmia and Great Enlargement of the Spleen.

Dr. E. A. SAUNDERS: This little boy, aged 9, now in the Devonshire Ward of the West London Hospital, is shown

to-night with the kind permission of Dr. Hood. On admission, some five weeks ago, he presented, in addition to the large square head with marked bossing in the temporal and parietal regions and his stunted growth, an intense anæmia and very great enlargement of the spleen and, to a less degree, of the liver. The patient was brought to the hospital on account of pain in the abdomen and shortness of breath. The pain, however, began the day before admission only, was not severe, and did not appear to be associated with the spleen, which was not tender. It disappeared on the patient being put to bed, and was probably only due to some slight gastro-intestinal disturbance. The shortness of breath and pallor had been noticed for only three weeks, but in all probability was of longer duration. The boy had suffered from whooping-cough and measles in infancy, but there was no history of any serious illness, or recent affection of health previous to three weeks ago. His mother had suffered from rheumatic fever four weeks ago. His father and the four other children of the family were alive and said to be healthy. The mother had had no miscarriage. On examination of the blood, the anæmia was found to be of the simple type, the red blood corpuscles being 1,780,000 and the white blood corpuscles 5,000 to the cubic millimetre. The hæmoglobin was about 40 per cent. The pearly-white sclerotics, with a faint icteric tinge at the periphery of the exposed portion, the blanched lips of a light pink hue, and the extreme pallor of a peculiar lemon yellow, bore a resemblance to what one sees in a case of severe pernicious anæmia. The margin of the spleen could be felt well below the umbilicus, and reached to the mid-line. The liver also could be felt some 2½ inches below the costal margin in the right nipple line. There was no enlargement of the lymphatic glands, no albumen, no purpura, no hæmorrhages, no œdema and no rise of temperature, except on one day in association with a slight soreness and congestion of the fauces. In spite of the absence of any history and of any definite signs of syphilis in the eyes, teeth, angles of the mouth, or elsewhere, the broad flattened face and upturned nose of the patient certainly suggested the presence of hereditary syphilitic taint, and it is quite possible that this disease may have played a part in the production of his present condition. The bossing of the head and the stunted growth (he is 3 feet 9 inches in height—some 3 inches below the normal height for his age) are, I think, purely of rachitic origin. Regarding, however, the condition as being almost entirely the result of malnutrition, I intentionally avoided anti-

syphilitic treatment in the form of mercury or iodide of potassium, and placed him on good nourishing diet with plenty of milk and cream, and allowed him to be out in the fresh air as far as was possible. He was given also cod-liver oil, which should be regarded rather as food, and a mixture containing 5 grains of citrate of iron and ammonium, with 1 minim of liquor arsenicalis, three times a day. The improvement was extremely rapid. In one week he had gained 9 lb., his anæmia had practically disappeared, and both liver and spleen had begun to decrease in size. In nine days his red blood corpuscles had doubled, numbering 3,880,000, while the white blood corpuscles now numbered 8,000, and the hæmoglobin was about 75 per cent. With this the shortness of breath had disappeared, and the boy was apparently quite well. As you see him now, he has still great enlargement of both liver and spleen, but the margins of both are well within 1 inch of their former positions. With regard to these varieties of curable anæmia in children, associated with enlargement of the spleen, they may be arranged under two chief heads: (*a*) Those where there is a great increase in the number of leucocytes—the so-called "pseudo-leucæmic anæmia" of children, *pseudo*-leucæmic because, though comparable to leucæmia in adults, they have not the same permanent or progressive character; and (*b*) those, as in this patient, where there is not this increase of leucocytes—the so-called "simple splenic anæmia." These bear some resemblance in the intensity of the anæmia and the great enlargement of spleen and liver to the disease in the adult described by Banti and known by his name, but differ likewise in their curability and non-progressive character. As to the cause of these conditions, there is but little doubt that bad feeding plays the most important *rôle* in their production, though bad ventilation and insanitary conditions generally no doubt play a minor part. The presence of hereditary syphilis is, I believe, frequently also a contributory cause, though I am inclined to think it is as a general depressor of functional activity rather than as a specific factor that its baneful influence is exerted. The rapid recovery of this little boy under what may be termed *non-specific* treatment — though I am far from underestimating the value either of iron, arsenic, or of cod-liver oil in the treatment of syphilis—is greatly in favour of this view; and though it is quite possible that his condition might still further be improved if he were given mercury by mouth or by inunction, it is good and digestible food, fresh air and sunlight, and such hæmatinics as iron and arsenic, that are chiefly of value in such cases.

Dr. DUDGEON: I should like to ask Dr. Saunders whether he has made a differential count of the leucocytes in his case. It is extremely important at the present day to make a complete examination of the blood in all cases of anæmia in children, because there are some who hold that there are such diseases as splenic anæmia, pseudo-leucæmia, leucæmia, &c., in infants; others who consider that every "anæmia" is dependent on rickets, congenital syphilis, or a gastro-intestinal infection. We meet with quite as many myelocytes in the one class as in the other, and therefore it is essential to make a complete examination of the blood, so as to be able to observe whether there are any points of difference. Secondly, I should like to ask Dr. Saunders if he considers that the entire reduction in the size of the spleen and liver is real or only apparent. I have noticed that when marked enlargement of the liver and spleen has been diagnosed during life, sometimes at the autopsy the condition of affairs is quite different. We all know how lax the ligaments are in rickets, and therefore I consider that when the spleen and liver are enlarged, they tend to drop by their own weight, and thus cause an exaggeration of the condition of affairs. One of the ablest physicians in this country, Dr. Eustace Smith, considers that there is much in favour of this argument.

Dr. ARTHUR SAUNDERS: I have no doubt that in some cases laxity of the ligaments may be responsible either for an apparent enlargement or for an exaggeration of a true enlargement of liver and spleen, from the resulting displacement downwards of these organs in the way that Dr. Dudgeon suggests. And indeed, where their weight is considerably increased, such a displacement from dragging upon their attachments is almost bound to occur, even where no abnormal laxity of ligaments is present. In such cases, where the displacement has been great, it is possible that on the patient being confined to bed for a long period in the recumbent attitude a considerable alteration of position in the organs might take place and even be rendered permanent. This boy, however, since his admission has been up and about in the ward, or when possible, out in the open air during the day, and though for the first few days confined to bed, was not kept in a recumbent position. Under these conditions, even with good feeding, I think it extremely doubtful whether any considerable reduction in the laxity of the ligaments could take place, though it is probable that the organs, actually diminished in weight, do drag upon them to a somewhat less degree, and may therefore

occupy a slightly higher position. But I cannot think that such change in position has played anything but a very minor part, and I think the reduction in size is a real one. As to Dr. Dudgeon's observation on reduction in size at the autopsy as compared with that observed during life, I think this may be explained in some cases by the diminished vascularity of the organs after death. Still in such cases as the one we have seen to-night the spleen is usually found to be firm, hard and not markedly vascular and the increase due to a true hypertrophy. No one, I think, who had examined the spleen in this boy could regard it as conceivable that the enlargement was other than real during life, or that it would not persist after death.

ORDINARY MEETING.—Friday, December 4, 1903.

Dr. SEYMOUR TAYLOR, President, in the Chair.

The following gentlemen were elected members of the Society: Oswald Challis, Lieut. R.A.M.C., M.R.C.S. L.R.C.P., c/o Messrs. Holt and Co., 3, Whitehall Place, S.W.; C. F. Lyne Dixson, M.D.Dunelm, M.R.C.S., 4, The Butts, Brentford; J. Howell Evans, M.B., B.Ch.Oxon., F.R.C.S., 28, Davies Street, Berkeley Square, W.; Arthur Croft Hill, M.D.Cantab, M.R.C.S., L.R.C.P., 169, Cromwell Road, S.W.; R. F. Maxwell, L.R.C.P., L.R.C.S.Edin., 211, Uxbridge Road, W.

Appendicitis.

Mr. F. G. LLOYD read a paper on this subject, for which see page 1. Owing to lack of time discussion of this paper was postponed.

Boldness in the Treatment of Heart Disease.

A paper was read by Dr. ALEXANDER MORISON with this title, and will be found on page 15. The following discussion took place:—

Dr. LILIENSTEIN (Bad-Nauheim):[1] GENTLEMEN,—First let me thank the President for affording me the opportunity of saying a few words on our special experience at Bad-Nauheim. I regret that I cannot speak English sufficiently fluently to address you in your own language. The views of Dr. Morison were specially interesting to me, as they were quite in agreement with our own observations. We find that digitalis is

[1] (Translated by Dr. Alexander Morison.)

often abused, especially by general practitioners. It is often used without any choice in different forms of functional and organic disturbance of the heart's action, while its employment should be limited to altogether special conditions. Some doctors think they should use it if they discover but one symptom referable to a disturbance of the circulation; when, for example, they find a cardiac bruit. A consideration of the conditions of the individual case is important in disorders of the heart; and this holds good not only in the matter of medicine, but also with reference to physical therapeutics. I may mention in the first place the carbonic acid baths. With these also harm may easily be done to cardiac patients who are not carefully watched. We attach great importance to sparing the heart. After the second, third, or, at most, fourth day of bathing, we interpose a bath-free day. I am quite in accord with Dr. Morison's insistence as regards the general mode of life, and dietetic instructions prescribed for patients. Finally, I do not wish to omit mention of the importance of mechanical treatment (massage, active and passive gymnastics), which has been developed by us into a perfect system in connection with the baths. I thank you again for your friendly reception of me in your Society. As regards blood-letting, which has been mentioned, I also have had good results in some cases, especially in affection of the aortic valves and raised blood pressure, and this I have observed particularly in the case of patients gravely ill.

The PRESIDENT: The tendency of modern medicine in the treatment of cardiac failure is summed up in the word boldness. The Nauheim bath, the graduated exercise, and increasing muscular efforts, all introduced within recent years, point to the same conclusion. Probably had these methods of treatment, which have been so ably advocated by Dr. Morison, been suggested in the immediately preceding generation of practitioners, they had been received with opposition, if not with ridicule; but modern clinical experience is altering our views of treatment. In the great majority of cases of heart failure not only is there a want of balance between the two sides—as between two cavities—but there are the results of this, and so far as I am able to read the phenomena of heart failure, congestions of various organs and parts constitute, in a great measure, the enemy which we have to attack. Therefore, I resort to blood-letting in many instances, leeching frequently; but trusting more to the lancet, whenever I can overcome the prejudice of the patient or his friends. Nor do I overlook the advan-

tage which sleep affords in these cases, and I frequently prescribe opium or morphia, providing the kidneys are free from organic disease. But I would lay down the maxim, "That there is no golden rule in the treatment of these cases." Each patient is a new study, differing probably from any other; and we must treat not only the visceral malady, but also the peculiarities and idiosyncracies of the individual.

Mr. R. W. LLOYD: As an anæsthetist, allow me to thank Dr. Morison for the compliment he paid to anæsthetists in the latter part of his paper. With all deference I would point out that there is this difference between the methods of the physician and those of the anæsthetist: The physician administers drugs in *liquid* form to cases of heart disease, accompanied by loss of control, while the anæsthetist administers a drug in *vapour* form very gradually, continuously watching its effect and being ready and able to vary or withdraw it on the appearance of any sign of failure of control of the heart.

Dr. NEVILLE WOOD: I agree with Dr. Morison that in a limited number of cases large doses of digitalis, after suitable preparation of the patient, will produce results that might fairly be described as startling. I should like, however, to remind members of the Society that in another class of case equally extraordinary results are obtained by the use of almost infinitesimal doses. I should therefore prefer to advocate precision rather than boldness in cardiac therapeutics.

Mr. MALLAM: I am glad to hear the President speak with approval of bleeding in heart-disease, as I had some time ago a case of severe aortic regurgitation, accompanied with so much pain that the patient disturbed the neighbourhood with his cries, which was relieved by bleeding to the extent of about 8 oz., which was followed by quiet sleep and comfort. So much was the patient convinced of the efficacy of the treatment that on a future attack, when in the hospital, he asked to be bled, but his request was not granted. Other cases I have had in which I believe it would have been useful, but did not like to employ a remedy so little in use.

Mr. G. E. TWYNHAM: Only on the matter of bleeding, I may say I have a patient for whom I used venesection, and since that time she has insisted on being bled twice a year. I usually take about a pint.

Dr. ALEXANDER MORISON, in replying, reiterated the necessity for a careful selection of cases for submission to the rapid method of controlling the heart; but said these

would be found to be of frequent occurrence in subjects under 40. He also explained his preference for venesection over leeching as a preparatory, or therapeutic, measure, on account of its more sudden or rapid relief of the right heart, which allowed the left heart to disengorge the pulmonary circuit more easily than when the dextro-cardiac repletion was more gradually, if at all—of this he was doubtful—affected by the tedious and inconvenient, as well as ineffective, process of leeching.

THE PHYSIOLOGY OF THE LARGE INTESTINE.—Under the auspices of Professor Pawlow a series of experimental researches has been carried out on animals and the results embodied in a dissertation by G. B. Berlatsky. The conclusions are thus summed up by the author: (1) The secretion of the cæcum is markedly alkaline in reaction and composed of mucus and fluid. During starvation the secretion is diminished in quantity. (2) The quality of food has no influence over the amount of secretion, which appears to depend on the rapidity of motion of the intestinal contents. (3) The juice of the cæcum is inactive in respect to egg-albumen and fibrin and contains no kinase; on the other hand, it exerts a strong action on starch. Besides a diastatic ferment cæcal juice contains a proteolytic ferment which splits up albumoses and peptones (Cohnheim's erepsin). (4) Milk and all articles of food prepared with milk (soups, gruels) rapidly pass the small intestine and appear one to two hours after ingestion in the large bowel in quantities equal to one-half the amount ingested. (5) The large intestine assimilates nitrogenous substances; during a milk diet about 20 per cent. to 26 per cent. of the total nitrogen-amount consumed with food is assimilated in the large bowel. This fact has important clinical bearings. It explains, for instance, the well-known nutritive value of milk enemas; furthermore, it accounts for the pernicious action of milk in diseases of the large intestine, especially in the colitis of childhood; similarly in dysentery a milk diet is empirically known to be injurious; all these data are explained by the assimilation of milk in the large bowel, which should be given rest in disease. On the other hand, when the large intestine is sound while the stomach or the small intestine is affected, a milk diet is indicated and well borne. Theory and practice are in this case in unison.—*American Medicine*, August, 1903.

The Mirror of Practice.

TWO CASES OF ADHESIONS ABOUT THE SIGMOID FLEXURE.

By Leonard A. Bidwell, F.R.C.S.

Surgeon to the West London Hospital; Dean of the Post-Graduate College.

The following two cases, upon which I operated recently, are of interest, since they illustrate the amount of continuous suffering endured by patients having intestinal adhesions, and they also show that long-continued abdominal pain always justifies an exploratory operation, since in practically every case some organic lesion will be found. Although no definite diagnosis was made before either of these operations, the symptoms were considered as being due to some obstruction, and I suggested the likelihood of finding adhesions as the cause of the trouble.

Case 1 was a married lady, aged 61, who consulted me in October last. She had never been strong, but had fairly good health, and had two children. She had an attack of enteric fever ten years ago, and a year later she had a severe attack of melæna (passing large clots from the rectum); and since this she has had periodic attacks of acute abdominal pain, the last severe one having occurred two months before. She has continuous discomfort in the abdomen, and always has to take aperients so as to produce a loose motion, as the pain caused by a formed motion is too great to bear. The pain is often worse after the bowels have acted than before; it is situated in the iliac fossa, not in the neighbourhood of the anus. The patient was very emaciated and rather anæmic, the abdomen was not distended, and there was no tumour to be detected; but there was considerable tenderness in the left iliac fossa. On examination per rectum some hæmorrhoids were detected, but no sign of any ulceration or growth; the patient said that the rectal examination did not reach sufficiently high to touch the painful part. I therefore examined her under an anæsthetic, and after putting my hand into the rectum was able to examine the sigmoid, but I could not detect any growth, but I did feel some thickening apparently in the wall of the upper part of the sigmoid.

As the patient appeared to be suffering so much and so

continuously, I thought that a colotomy or an ilio-sigmoid-ostomy might give her relief, and I suggested an exploratory operation, with a view of doing anything that might be found necessary. This was gladly agreed to, and on November 2 the patient was put under gas and ether by Mr. Chaldecott, and the abdomen was opened in the left linea semilumaris, and the sigmoid examined. About its centre some dense adhesions were found which caused a definite kink; these were traced downwards and were found to be connected with the left ovary. They were divided between two ligatures and the sigmoid completely freed. No other abnormality was detected, and, as the kink produced by these adhesions explained all the symptoms, nothing further was done, and the abdominal wound was closed.

The patient made an uninterrupted recovery, and experienced complete relief from her abdominal pain. She left her bed on the fifteenth day.

Case 2.—Miss B., aged 49, was sent to me by Dr. Sinclair, of Parson's Green, on account of constant abdominal pain. She had enjoyed good health until the year 1883, when she had "uterine displacement," and was treated for three months in the Samaritan Hospital. In 1884 she had "congestion of the liver"; there was no jaundice, but I should think that it was probably some cholecystitis, as ever since the illness she had attacks of sickness at intervals, and indigestion. The indigestion and sickness continued much the same till two years ago, when the symptoms became aggravated, and she commenced to have severe abdominal pain and obstinate constipation. In November of last year she went to a Cottage Hospital on account of her bowel trouble, and there she had an operation on her stomach, which consisted in division of adhesions. Her indigestion and sickness were relieved, but there was no improvement in her abdominal pain or constipation. She is supposed to have had some bowel trouble as an infant, and has always taken aperients. She now complains of pain across the back and of severe attacks of pain in the left iliac region, together with a feeling of pressure; this pain is not relieved after the bowels act. The motions are always scybalous unless an aperient is taken, and she has noticed mucus and membranes tinged with blood in her stools. She suffers from nausea and headache. On examination, the patient was moderately well nourished, but anæmic. The abdomen was distinctly full, and there was resistance and a feeling of enlargement about the sigmoid; there was also tenderness in this region. The right kidney was movable. On examination per rectum

a mass of scybala was found, but no evidence of ulceration or growth; there was no ballooning of the rectum. I considered that her trouble was probably due to some old ulceration colitis, and I recommended an exploration with a view to performing an ilio-sigmoidostomy, if nothing definite was discovered. The proposition was eagerly accepted by the patient, and accordingly she was admitted into the West London Hospital on November, 1903. The patient was anæsthetised, and the abdomen opened by an incision in the outer border of the left rectus below the umbilicus. The sigmoid flexure was examined, and at about its middle it was found to be firmly bound down to the pelvic organs; on further examination the left ovary was found to be enlarged, and the seat of a definite fibroma, and it was to this organ that the sigmoid was adherent. The left ovary was then removed after ligature of its pedicle, and some further adhesions about the sigmoid divided after ligature. The loop of gut was then quite free. No stricture was found, so no anastomosing operation was necessary. The abdomen was closed in the usual way. The patient made an uninterrupted recovery, and has not suffered any pain since the operation.

Remarks.—These two cases are practically examples of an almost identical condition, namely, adhesions between the ovary and the sigmoid. In the first case, however, the cicatricial contraction in the mesocolon was more marked, and in this case the appearance of the symptoms seemed to date from an attack of enteric fever. In the second case the primary trouble was probably ovarian. At this early stage after an operation it would be absurd to say that these patients will be permanently relieved of their trouble, especially as it is well known that intestinal adhesions have a most unpleasant tendency to reform after division, and it is not at all rare to get a recurrence of the trouble after an operation such as I have described. We can, however, confidently expect that there will be freedom of pain for a time, and if adhesion should reform and give rise to trouble I should then recommend the performance of an ilio-sigmoidostomy; this I did in a case where severe pain recurred some five years after division of sigmoid adhesions.

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A CASE OF SUBACUTE GLAUCOMA CAUSED BY A HYPER-MATURE CATARACTOUS LENS: IRIDECTOMY: EXTRACTION OF THE LENS: RECOVERY OF VISION.

By Percy Dunn, F.R.C.S.

Ophthalmic Surgeon to the West London Hospital; Lecturer on Ophthalmology at the West London Post-Graduate College.

For the notes of the following case I am mainly indebted to my late house surgeon, Mr. H. H. Weir, whose assiduous care and attention to all my cases during his period of office I am glad to take this opportunity of acknowledging.

B. P., a hale old woman, aged 88, was sent to the hospital on August 12, 1903, by Dr. J. McNamara, of Sinclair Road, West Kensington, and was admitted under my care. She stated, on admission, that twelve years ago she had attended, in the ophthalmic out-patient department, for failing vision in the left eye, and that I then informed her she was suffering from cataract. For the last ten years she had only been able to distinguish, in the affected eye, light from darkness, but inasmuch as the sight in the right eye, up to about six months ago, had remained good, she had not troubled to attend at the hospital again for further advice. About a year ago the left eye began at intervals to feel painful and become inflamed; moreover, it frequently ached, causing her a good deal of discomfort. Within the last two or three months, also, the right eye had become the seat of occasional attacks of "shooting pains," and haloes had been noticed around the gas lamps. Fourteen days before admission the left eye suddenly became acutely inflamed and painful. The pain was so acute as to have caused several attacks of vomiting.

On admission: *R. E.:* conjunctiva and cornea natural, pupil contracted 2 mm. T.n.; commencing nuclear cataract. *L. E.:* globe injected, cornea very hazy; pupil contracted 2 mm., immovable; anterior chamber shallow, T. + 2; lens: hyper-mature cataract.

Both pupils were under the influence of eserine, which Dr. MacNamara had prescribed after he had been summoned to the case and found glaucoma present in the left eye.

The patient was placed in bed; eserine drops (gr. ss. ad ʒi.) were ordered to the left eye every four hours, and hot chinosol fomentations.

August 13: Injection of left eye less; pupil 1 mm.; V. = good P.L.; T. + 1; pain gone; vomiting ceased.

August 20: The patient was placed under the influence

of chloroform, and with a Graefe's knife a section was made through the corneo-scleral junction of the left eye, followed by a large iridectomy upwards. Next a scoop was passed through the wound into the anterior chamber, gentle traction applied, and the lens extracted in its capsule. In this procedure not the slightest difficulty was experienced. No loss of vitreous occurred, and the operation was uncomplicated throughout. After each step in the operation the eye, as usual, was freely douched with a 1—4,000 solution of chinosol; the dressing consisted of a pad of chinosol gauze and a bandage, while, as usual, the fellow eye was left uncovered.

August 21: Anterior chamber reformed; eye dressed and looking well.

August 25: Eye doing well.

August 27: Hardly any injection of the globe; T.n.

August 29: Patient discharged.

On December 3 the vision was tested, when the result was as follows: L. E. $\frac{6}{nil}$ + 13 = $\frac{6}{12}$ nearly, $\bar{c}$ + 16 J. 4 at 6 in.

Remarks by Mr. Percy Dunn.—Secondary glaucoma may arise from a variety of causes, but among these a hypermature cataractous lens is one of the rarest. This is mainly owing to the fact that a cataractous lens is generally extracted before the hyper-mature stage is reached. Hyper-maturity, however, may be allowed to occur under one special condition, and that is, as in the present case, where one lens becomes cataractous long before any lental changes supervene in the other eye. If the vision remains good in one eye, an old patient is usually satisfied to ignore the loss of sight caused by the cataract in the other, and so, with the lapse of time, the cataract is apt to undergo secondary changes with which hyper-maturity is associated, calling for no special attention until symptoms of glaucoma develop. No doubt in these cases atrophy of the zonule ensues, and thus the lens falling from its normal position, comes to compress the filtration angle in the anterior chamber.

The recovery of vision in the above case is satisfactory, and especially for the reasons that the eye had been blind for twelve years, and that for the last twelve months, according to the history, symptoms of increased tension had been present. Ophthalmoscopic examination revealed that the media were clear and the fundus natural. There were no signs of excavation of the disc.

An almost parallel case to the above was that of an old lady who was sent to me by Dr. Herbert Menzies, of Earl's

Court Square, in October last. In this case the right eye had been blind from cataract for ten years, but the signs of increased tension had been only noticeable for two months previously to my seeing her. The extraction operation was quite uncomplicated, and the eye made an excellent recovery, with the restoration of vision. But it is not always so that these attacks of secondary glaucoma are unattended with harmful results. An American surgeon records two cases in which total loss of sight occurred, the patients being mainly responsible for this owing to their neglect to seek advice until it was too late.

A SEVERE CASE OF PUERPERAL SEPTICÆMIA: RECOVERY.

By John Atkins, M.B., F.R.C.S.

The following is an extract from my notes on a case of puerperal septicæmia. It is given to show how complete recovery may result in a case in which the severity of the symptoms was such as to make it apparently hopeless.

F. S., aged 24, came under my care giving the following history. A month previously she had been confined with her first child. Labour was protracted, lasting three days, but no instruments were used. The child was born alive and the placenta and membranes came away fifteen minutes later, and these, according to her former medical attendant, were intact. Milk was secreted on the third day after delivery, but four days subsequently suckling had to be discontinued owing to depressed nipples, and belladonna was applied to the breasts.

On the fourth day after the confinement—that is, the day after the appearance of the milk—patient was suddenly seized with a shivering fit while being washed. It lasted about fifteen minutes, and afterwards it was noticed that she squinted, but the nature of the squint could not be learnt. This was immediately followed by severe retro-ocular headache, which latter with the squint gradually diminished and disappeared within a week. The shivering fits continued, one each day, and from the first the temperature varied markedly every twenty-four hours, sometimes from subnormal to above 104°. The lochial discharge had at no time been excessive or foul, and lasted fourteen days. Patient had suffered from no abdominal pain, the bowels had been regular, and she had taken milk and soup for diet and quinine as medicine.

tion of the nasal cavities ulceration could be seen on either side of the septum covering an area of about half an inch square, with edges slightly ragged and bleeding at parts. In the middle of this, about half an inch from the lower border of the septum, the latter was ulcerated through, leaving a perforation large enough to pass a cedar pencil. The ulceration was considered to be due to the septicæmic condition and cleared up quickly on using alkaline douches and ung. hyd. trit. dil.

From this time patient began to mend, although her recovery was retarded by an attack of follicular tonsillitis and a slight attack of pleurisy, being able to leave for the seaside at the end of three and a half months. Throughout this time she was kept on a liberal diet, given port, brandy and champagne freely, many cardiac and general stimulants, intestinal antiseptics and regular injections of antistreptococcic serum (20 cc. per diem for ten days), which latter had apparently no effect other than making the patient uncomfortable.

After this illness in which the temperature frequently rose above 104°, pulse rate above 160, and respirations sometimes 88 per minute, with evidences of cardiac dilatation, rigors, venous thrombosis, three distinct pulmonary embolisms, joint affections and nasal ulceration, the patient wrote to me last week saying that she is in excellent health, cycling daily and dancing frequently.

A CASE OF CARCINOMA OF THE LARYNX TREATED BY X-RAY AND HIGH FREQUENCY CURRENTS.

By Leonard C. Dobson, M.D.Lond.

In February, 1901, I was consulted by a gentleman, aged 64, who gave the following history: For some years he had been troubled with hoarseness, for which he had consulted one or two specialists, who told him that he had loss of mobility of the right vocal chord, but were unable to find any cause for it, although aneurism was suggested. He informed me that latterly his voice had been much worse, that he was losing weight, and that he was very easily fatigued after exercise. He was a spare, thin man, of very regular habits, taking very little alcohol, and had not suffered from syphilis. On examination, a rounded swelling of stony hardness was found on the right side of the larynx about the size of a tangerine orange adherent to and involving the thyroid

cartilage. There was a large hard gland on the same side under the angle of the jaw, and several other smaller glands in the neighbourhood. His voice was deep and husky, almost amounting to a hoarse whisper. By means of the laryngoscope the right vocal chord was seen to be almost immobile in a neutral position, and there was an oval smooth projection running from the base of the right arytenoid cartilage and round the right side, slightly obscuring the chord, but apparently not involving it. There were no signs of heart or arterial mischief, patellar reflexes were absent, discs normal, urine natural, and the radial pulses were equal. I came to the conclusion that he was suffering from carcinoma of the larynx and advised him to take another opinion. Acting on this advice he consulted Dr. Havilland Hall and Mr. Henry Butlin, who confirmed the diagnosis. Mr. Butlin also advised him that the case was too advanced for radical operation of any sort. He was given iodide of potassium in increasing doses for some time, but beyond slightly reducing the glandular enlargements it was of no avail. His condition steadily grew worse, the growth increasing rapidly and encroaching more and more on the glottic aperture, and the glands also becoming much larger. About October, 1901, he was so weak that he could hardly cross the room, his voice had diminished to a whisper, and he had several severe attacks of dyspnœa. I therefore advised him that tracheotomy was urgently necessary, and this operation was performed about the middle of the month. He was, of course, greatly relieved, and was soon able to get up, but his condition was still very bad. He had marked cancerous cachexia, and owing to his feebleness great difficulty in walking, and in swallowing, partly due to obstruction from the growth and partly to the large quantity of mucus which was continually pouring into the pharynx from the glottis, although he was now wearing a soft rubber tube which fitted well and gave little or no trouble. Astringent solutions, adrenalin and other drugs were tried to mitigate this, but nothing was of any avail until morphia was given in ¼-grain doses twice daily, when the secretion rapidly diminished. As the patient was very anxious that something more should be done, I, with Dr. Harrison Low's advice and direction, commenced to expose the growth to the influence of the X-rays, giving an exposure of five minutes' duration daily while carefully guarding the face and neck with a mask of lead foil. Improvement set in almost immediately, and he daily gained weight. The cachexia disappeared and strength increased, so much so that by the end of January, 1902, he was able to take two or three-mile

walks daily. The glands slowly diminished in size, and by the end of April had disappeared, the large one under the angle of the jaw being the only one which could just be felt. At the same time the tumour was diminishing in size, and in May his condition was as follows: The growth had shrunk to about the size of a large walnut and was very firm and hard to the touch. The intralaryngeal swelling had diminished and there was now a free space to be seen again between the chords, and there was little or no mucus. One small gland the size of a hazel nut was to be felt under the angle of the jaw, the others had disappeared. The patient was very comfortable, being able to attend to his throat and change his tube himself, and could speak distinctly when he closed the mouth of his tracheotomy tube. He took daily walks of five or six miles, had gained considerably in weight, and was in good health and spirits. He still continued his daily exposures of five minutes to the X-rays given by my regular surgical nurse under my superintendence. The improvement continued until June, when suddenly considerable œdema and redness of the skin appeared around the larynx and left side of the neck. The X-rays were stopped for some days, but unfortunately the skin gave way about the seventh day, the result of a burn. The sittings were resumed again as soon as the skin had healed, but at intervals of every other day, and the patient continued to improve in health and strength until the question of removing his tracheotomy tube altogether was seriously considered, as there was but little of the growth left, and there was a good glottic aperture. It was decided to wait a little longer, however, as one was not quite satisfied with the state of the skin over the larynx, which was again assuming a dusky tint, and shortly afterwards, in spite of the fact that he was only having three sittings a week of three minutes' duration, the skin again gave way. It was then decided to commence treatment by means of high frequency currents, and from this time to the date of his death, in August, 1903, he had a daily sitting of half an hour's duration by means of the unipolar method and also with a glass electrode applied to the growth; X-rays were tried from time to time, but one short exposure even was sufficient to create an angry blush of the skin, so that after one or two slight burns they had to be finally abandoned. The patient still continued in good health, the growth remaining apparently quiescent, and he went away for his autumn holiday with his nurse and high frequency apparatus. While away a small abscess formed and burst at the side of the tracheotomy wound, leaving a fistulous track which never afterwards completely healed. He was seen again in Septem-

ber, and from that date to November he continued in good health, taking long walks and keeping up his strength. In November he contracted a feverish cold which considerably prostrated him, and from that time the disease gradually began to increase again, but its progress was exceedingly slow. About March, 1903, it was noticed that the growth had regained its original size, and the gland at the angle of the jaw was increasing. The fistula now began to give trouble, pus collecting in small quantities and then discharging through the track. From this time he steadily went down hill, although he retained his strength and vigour in a wonderful manner. The increase in the growth continued, and about June it began to break down and discharge pus through various openings in the side of the neck, the œsophagus was ulcerated through, which necessitated most careful feeding with a tube, and finally the whole right side of the neck necrosed, leaving an extensive cavity which laid bare the carotid vessels and the principal structures of the neck as far back as the spine. An attack of hæmorrhage occurred in the early part of August and he died quietly twenty-four hours after.

The interest of this case lies in the length of time, one year and ten months, that the patient lived after the operation of tracheotomy. When this was performed he was a dying man, in an advanced stage of cancerous cachexia, and he was not expected to survive for many weeks. However, under the influence of the X-rays he steadily improved, put on over two stones in weight, and for a period of at least twelve months he walked from four to six miles a day and enjoyed his life with the sole drawback of his tracheotomy tube. As long as the X-rays were continued it certainly seemed that he would ultimately be cured, but unfortunately they had to be abandoned, and although there was no doubt that high frequency currents assisted him to keep in good health and to resist the inroads of the disease, yet they did not seem to have the same power of arresting the growth, which, after a time, and more particularly after he had been prostrated by a severe feverish attack, steadily advanced. In the course of the treatment of this case, especially toward the end when the neck was an extensive mass of sloughing and gangrenous tissue, I was struck by the efficiency of enzymol, which is a compound of thymol and digestive enzymes. All kinds of antiseptic dressings and deodorants having failed to keep down the fœtor of the discharge, the wound was packed with gauze soaked in enzymol, which rapidly digested and destroyed all the gangrenous and sloughing tissue and left the wound sweet and clean until his death.

Hospital Notes.

By Charles Buttar, M.D.

Three Cases of Uterine Fibroids.

The following are notes of patients recently operated on by Dr. Mansell Moullin, by subperitoneal hysterectomy for uterine fibroids :—

(1) R. B., aged 32, married, was admitted on August 12, 1902. She had had four children, the last confinement being four years ago, when she was told that she had a fibroid. She had also had several miscarriages, generally at two and a half months. The catamenia began at 14, and were always regular every four weeks, and lasted three or four days without pain, until lately. For two years there had been increasing loss at each period. Three years ago she had an attack of abdominal pain, with retention of urine. On admission a central hard tumour was found, reaching up to the umbilicus. The cervix was not involved, and the pelvis was free. On October 4 the cervix was dilated. The cavity of the uterus was found to be large, and a fibroid was felt projecting on the posterior wall. The interior of the uterus was curetted, and a considerable quantity of hypertrophic mucous membrane removed. The cavity was then packed with cyanide gauze. On October 15 the patient was discharged at her own request. The patient continued to lose profusely at each period, became very anæmic, and frequently fainted. On January 28, 1903, she was readmitted. The tumour was fairly regular in outline, tender on the left side, and now reached to about two inches above the umbilicus. The sound only passed two inches, but it is doubtful if it went the full extent of the cavity. After a course of iron, the patient was anæsthetised on February 27, and the abdomen opened in the middle line from the umbilicus to the pubes. The vessels of the broad ligament were secured, and the round ligaments secured with a separate ligature. The reflections of the peritoneum were cut through, the uterus freed from contiguous parts, and severed above the cervix. The edges of the stump were sutured. The left ovary, which was the size of a turkey's egg and cystic, was removed. The fundus of the bladder was fixed to the stump of the uterus by sutures through the muscular coat. The patient made an uninterrupted recovery, and was discharged on March 22.

(2) E. B., aged 36, married, had had two children, the last

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being now nine years old. She had had no miscarriages. Catamenia regular every three weeks and not excessive. She was admitted on March 12, 1903. Four weeks previously she first noticed a swelling in the abdomen. For some months she had had pain, especially after passing water. Micturition had been frequent, with occasionally a small quantity of blood. She suffered from " bearing down " feelings. On examination a hard nodular tumour was felt, extending to within one inch of the umbilicus. The cervix was large and patulous and the tumour, which was evidently uterine, was movable. On March 17 a median incision six inches in length was made. A hard nodular fibroid was found springing from the left side of the uterus. The vessels of the broad ligament were secured, and a separate ligature passed round the round ligaments. The peritoneum was incised round the uterus, which was then freed from its attachments and amputated just above the level of the internal os. The edges of the stump were brought together and the peritoneal reflection on the bladder was sutured to the posterior peritoneum of the stump. The tumour is described as being the size of an emu's egg. The ovaries being healthy were left *in situ*. The patient's recovery was uneventful, and she left the hospital on April 7.

(3) F. L. G., aged 40, was admitted on November 4, 1903. She had one confinement sixteen years ago, and another eleven years ago. Her periods had always been painful and profuse. The period as a rule lasted ten days, and there was only ten days' interval. She had constant pain in the left side of the abdomen. During four months she had increased five inches in the circumference of the abdomen. A tumour connected with the uterus was felt in the lower part of the abdomen. The cervix was low down; the tumour hard, smooth over the greater part, with small nodules here and there. On November 6 an incision four inches in length was made. A large fibroid was found with several smaller ones attached. The round and broad ligaments were ligatured and divided, and the upper portion of the uterus removed with the tumour. The left appendages were also removed. The anterior layer of peritoneum was brought over the stump and united to that on its posterior aspect. The patient recovered without any symptoms, and was discharged on November 30.

Dr. Mansell Moullin adds the following notes to this series of cases: " In all cases I make a point of saving the ovaries if healthy—if not both, at any rate one. The object of this is to save the patient from troublesome symptoms connected

with the menopause; but of the value of this proceeding I have never been able fully to convince myself. Psychical disturbance is said to follow hysterectomy occasionally, but it has not occurred in my own practice. Abel and Zweifel go further, and insist that a portion of the endometrium or mucous membrane of the body of the uterus should be saved, in order to preserve the catamenial function. This involves amputating the body of the uterus above the level of the inner os. Failing any evidence to prove the advantage of this, I prefer to amputate at the lowest point possible; there is less trouble from hæmorrhage and the stump is smaller and neater. When removing a fibroid uterus, the abdominal wound is necessarily a long one, and every care should be taken to prevent subsequent hernia. I prefer to close the wound in three layers, using fine chromicised catgut, which lasts long enough to secure firm union of the fascia and then becomes absorbed. Buried sutures of silk often give rise to late suppuration and eventually work out. In the neighbourhood of the umbilicus silkworm gut sutures are preferable, passed *en masse*."

Two Cases of Ovarian Cyst.

The two following cases illustrate operation for the removal of ovarian cysts at the extremes of life :—

(1) M. F., aged 14, was admitted under Dr. H. D. Robinson on September 8, 1903. Catamenia had not yet commenced, but the patient was said to have epistaxis every three weeks. A fortnight before admission she had pains in the right side of the abdomen, which was then noticed to be larger than formerly. On admission a large tumour was felt in the middle line. *Per vaginam* the uterus was found to be separate from the swelling, which was above it and slightly to the left. On September 11 Dr. Robinson made an incision through the posterior vaginal fornix. The cyst was then pulled down and a quantity of fluid evacuated. The removal was rendered difficult on account of the presence of secondary cysts. The pedicle of the cyst was ligatured, and the peritoneum of the stump sutured with catgut. The incision was then sewn up, and the vagina plugged. The plugs caused some pain subsequently, but the patient recovered without any other symptoms, and left the hospital on September 29.

(2) E. R., aged 83, had had seven children and one miscarriage. Three months before admission she noticed that the stomach was becoming larger. It had continued to increase ever since. Beyond this she had had no symptoms.

She was admitted on September 8, 1903. The abdomen was very much enlarged, dull on percussion, giving the thrill of encysted fluid, and with a mass of harder consistency in the right hypochondriac region. There was no pain. The abdomen was opened in the middle line, and dark brown fluid evacuated from the cyst. The hard mass felt *per abdomen* was found to be a secondary cyst attached to the larger one. The pedicle, which was very broad, was ligatured. Some adhesions in the pelvis were broken down, and the cyst removed. The cyst contained nearly 12 pints of fluid. The condition of the patient subsequently was quite satisfactory, and she was discharged on October 6.

Reviews and Notices of Books.

BISHOP'S ESSENTIALS OF PELVIC DIAGNOSIS.[1]

THIS is an attempt to present a rational and practical scheme of pelvic diagnosis in a useful form for students and junior practitioners, and is carried out in a somewhat novel manner, which will be found to be of practical value to the student, who will learn thereby to arrive at a diagnosis by the process of deduction and exclusion; for starting with the more easily-observed symptoms, the differences between the various classes of disease in which these symptoms occur are pointed out; the classes are further subdivided into groups, and the groups into sections, which in their turn have their respective differences explained. A series of numbered paragraphs are drawn up, entitled lines of diagnosis, in which the more broadly marked and generally dividing symptoms are given in italics and in detail; also a set of diagnostic tables is given, in which a more comprehensive view may be taken of the entire class or group of pathological conditions to which the case belongs.

Careful instructions are given in the proper methods of examination both manual and instrumental. The value of pain as a factor in diagnosis is fully dealt with, the various forms of pain characteristic of special diseases being pointed

[1] "Essentials of Pelvic Diagnosis with Illustrative Cases." By E. Stanmore Bishop, F.R.C.S., with an "Appendix on Examination of Blood." By Chas. H. Melland, M.D.Lond., M.R.C.P. Bristol: John Wright and Co., 1903.

out, and stress laid on the diagnostic importance of areas of hyperæsthesia in relation to the several abdominal organs. The value of the book is enhanced by an appendix giving directions for the examination of the blood, which is now recognised to be so important a factor in diagnosis, whether medical, surgical, or gynæcological.

JOHNSON SMITH ON SURGICAL BANDAGING AND DRESSINGS.[1]

In this small guide the author has provided a ready and complete pocket reference book for junior students and nurses in surgical wards. The same ground, of course, has been repeatedly traversed by other authors in the past; nevertheless, we believe that there is room for this work, by reason of its handy size, conciseness, and general up-to-date character, which will commend it to those for whom it has been compiled. The literary style is excellent.

HIGGENS ON OPHTHALMIC PRACTICE.[2]

It is some years ago that the first edition of this work was published; consequently in this new edition much has been rewritten, while additions and omissions have been made. The task of editing the work has been carried out by Mr. A. W. Ormond, by whom most of the new matter has been contributed. As a description of modern ophthalmic surgery, limited to practical details, the work may be recommended, and will be found useful.

SWANZY ON DISEASES OF THE EYE.[3]

There is but little need to say much concerning a text-book which has reached its eighth edition. Furthermore, it seems but a platitude to add that this work now occupies the enviable position of being the most popular of its kind on the market. Again, it seems unnecessary to discuss why this should be the case, inasmuch as this position could not have been attained unless the work had been deserving of

[1] "Practical Guide to Surgical Bandaging and Dressings." By W. Johnson Smith, F.R.C.S. London: The Scientific Press, Ltd. (No date.)

[2] "A Manual of Ophthalmic Practice." By Charles Higgens, F.R.C.S. Second Edition, Revised and Edited by Arthur W. Ormond, F.R.C.S. Illustrations. London: H. K. Lewis, 1903.

[3] "A Handbook on the Diseases of the Eye, and their Treatment." By Henry R. Swanzy, A.M., M.B., F.R.C.S. Eighth Edition, with Illustrations. London: H. K. Lewis, 1903.

the approbation of teachers and taught. The author in this new edition has again spared no trouble in revising his pages. His best endeavours have been devoted to the inclusion of all new methods of treatment and advances in ophthalmic science which have come under notice since the issue of the last edition. A long list of these is given in the preface, hence it is unnecessary to refer to them more particularly. As a minor criticism, however, we regret to notice that the author still adheres to certain obsolete expressions in nomenclature. Surely the author must have observed that the word "tubercular" as applied to lesions dependent upon the tubercle bacillus has now become quite out of date, and that in these days it would be quite impossible to explain upon a correct pathological basis what is meant by "strumous" conjunctivitis. Again, throughout his pages the author perpetrates that solecism the "split" infinitive. These are but small blemishes, nevertheless their correction should claim the author's attention as a means of adding to the perfection of his work.

DANIELS ON STUDIES IN LABORATORY WORK.[1]

The use of the microscope in the investigation of the diseases of the Tropics becomes yearly more and more important; but for the medical practitioner in these climates, far removed as he usually is from a laboratory, the peculiar difficulties of turning the recent advances in bacteriology and animal parasitology to practical account are often almost insurmountable.

Dr. Daniels has, in the work before us, provided a most valuable aid in overcoming these obstacles. The outcome of practical experience, it is intended as a guide to the application of simple laboratory methods to medical practice in the Tropics.

The methods employed in the clinical investigation of the blood, urine and fæces are dwelt upon in detail, and the various steps in the production of mounted and stained specimens accurately described. Simple methods have been selected as far as possible.

The work includes an outline of animal parasitology and an account of the development of the best known of these parasites. A chapter, moreover, has been added by F. V. Theobald on *Diptera* to enable the student to differentiate the more important genera of this order.

[1] "Studies in Laboratory Work." By C. W. Daniels, M.B., M.R.C.S. London: Bale & Sons, 1903.

The book is well illustrated, and the three coloured plates at the end are especially valuable, where, in addition to the representations of double stained specimens of the various blood corpuscles, good illustrations are given of trypanosomata, the embryos of filariæ, *Amœba coli*, and the different forms of the malaria parasite. Examples are also given of the halteridia in the red blood corpuscles of birds and of the daspanidia in the blood of amphibia.

In the hands of any practitioner, who is desirous of conscientiously investigating the cases that come under his care, it should prove a most valuable guide.

CARTER ON DOCTORS AND THEIR WORK.[1]

A book, which has for its object the enlightenment of the general public as to the relations which should obtain between them and their medical advisers, and at the same time give them some insight into the workings of medical practice, should at least be written by one who has had a large experience of the matter about which he writes, and at the same time should be in an easily readable form. The book before us has both these merits, and in addition contains much good advice which one cannot help hoping may reach those who need such instruction, while one may perhaps be allowed to doubt if there are many patients who are likely to peruse a book of over three hundred pages in order to determine what should be the proper relation between themselves and their medical adviser, for, although the volume refers to many other matters, this we gather to be its chief mission.

LEWERS' DISEASES OF WOMEN.[2]

In this, the sixth edition, the author has brought his popular text-book thoroughly up to date. In the preface he notes that the principal alterations in the present edition are: (1) The recommendation of the intra-abdominal treatment of the stump after abdominal hysterectomy for fibroids; (2) a fuller account of fibroid tumours of the cervix uteri; and (3) the diminished importance attached to drainage after abdominal operations.

Among many other matters of importance ably treated

[1] "Doctors and their Work." By R. Brudenell Carter, F.R.C.S. 6s. London: Smith, Elder and Co., 1903.

[2] "A Practical Text-book of the Diseases of Women." By Arthur H. N. Lewers, M.D.Lond., F.R.C.P., Senior Obstetric Physician to the London Hospital. Sixth Edition. London: H. K. Lewis.

in this book we are glad to see a note of warning uttered concerning the employment of hysteropexy and other allied operative procedures for the treatment of so-called prolapse of the uterus. When it is understood that prolapsus uteri is essentially a prolapse of the pelvic floor, and that when the uterus does not follow the prolapse of the pelvic floor without some resistance, as is the rule, the supravaginal portion of the cervix becomes greatly elongated, one is not surprised to hear of many failures similar to that recorded on page 161.

In describing the treatment of polypi we note that the different procedures called for in cases of mucous and of fibroid polypi, and the reason for their choice, are hardly referred to; also in discussing the differential diagnosis of cancer of the cervix, the valuable information to be obtained by testing the friability of the suspected surface, and the amount of hæmorrhage produced by scraping it, is not, we think, sufficiently insisted upon, nor is the aid often rendered by the microscope sufficiently made clear.

The present edition of the book will, we believe, continue to maintain the popularity which its predecessors have justly gained.

HALL ON MEDICAL EXAMINATION FOR LIFE ASSURANCE.[1]

This little book meets a long-felt want, and will appeal to most medical men whatever be their sphere of work, as there are few who have not at one time or another to give their professional opinion on "the life" of some prospective insurer. As Dr. Havilland Hall well points out, the responsibility is a grave one, for not only has the examiner to guard the interests of the assurance company, but he has to bear in mind that by a refusal he may seriously jeopardise the chances of acceptance at any subsequent time by another company. Just those difficulties which the practitioner unaccustomed to examination for life assurance is confronted with, such as physiological albuminuria and the like, are concisely and explicitly dealt with, and, apart from the question of assurance, this book will well repay perusal, as it brings into prominence many points which are of value in arriving at a satisfactory diagnosis of a case.

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[1] "The Medical Examination for Life Assurance." By F. de Havilland Hall, M.D., F.R.C.P. Third Edition. 4s. Bristol: John Wright and Co., 1903.

ALLCHIN'S MANUAL OF MEDICINE.[1]

The fifth volume of Allchin's System of Medicine, on Diseases of the Abdominal Organs has been submitted to our notice. The opening chapters deal with the question of food diet, and the bacteriology of the alimentary canal. The diseases of the various parts of the tract and the annexed viscera are then considered in the detail and accuracy for which this work is already so well known. The book contains several valuable plates and charts, and altogether maintains that standard of excellence which characterises the former volumes.

HILLIER ON THE PREVENTION OF CONSUMPTION.[2]

This book deals with tuberculosis as a social problem, and is an endeavour to show the general public what the disease really is, and what measures should be adopted for its prevention. No attempt is made to deal with the question from the therapeutical or clinical point of view, thus enabling the book to be read by those for whom it is primarily intended. Much stress is laid upon compulsory notification, which, as a voluntary measure, is shown to be of considerable service to the community in places where it has been adopted. Indeed, the conclusion one inevitably arrives at on perusing the arguments here stated is that it is cheaper by far to treat phthisis than to pension it by allowing invalids to come upon the poor rates. The question of sanatoria is fully discussed and the advantages of "industrial colonies" for milder cases, which latter have proved so successful in Germany, entered into. The book is well worthy of perusal by any who are interested in the question of public health.

SHAW ON PHYSIOGNOMY OF MENTAL DISEASES AND DEGENERACY.[3]

This is an interesting little book, and gives a graphic review of the facial expressions seen in the various forms of mental affliction. It is well illustrated for the most part by photo-

[1] "A Manual of Medicine." Edited by W. H. Allchin, M.D.Lond., F.R.C.P., F.R.S.Ed. Vol. v. "Diseases of Abdominal Organs." London: Macmillan and Co., Ltd., 1903.

[2] "The Prevention of Consumption." By Alfred Hillier, M.D., C.M. Revised by Professor R. Koch. 5s. Pp. 225. London: Longmans, Green and Co., 1903.

[3] "Physiognomy of Mental Diseases and Degeneracy." By James Shaw, M.D. Pp. 83. Illustrated. Bristol: J. Wright and Co., 1903.

graphs of actual cases, and to those who have to diagnose mental disease it cannot fail to be of use. Dr. Shaw is well known by his excellent articles on the subject in the *Medical Annual*.

MELLAND ON CLINICAL METHODS.[1]

This is essentially a book for the pocket to be taken out when a practical method of examination of the urine, blood, sputum, &c., is required. It will probably fulfil a useful purpose in presenting the practitioner with a ready reference when knowledge of details is required to be refreshed.

WATSON ON EXAMINATION OF THE URINE.[2]

Another little book which should prove handy as a means of reference to the practitioner when engaged in the examination of the urine.

THE LIBRARY REPORT.

INTEREST in the Library continues to be maintained among Post-Graduates and members of the Society who are in the habit of visiting the West London Hospital. The scheme of extending the subscription to Messrs. Lewis, Medical Booksellers, is now in force, thereby enabling subscribers of 2s. 6d. and upwards to the loan of a volume for a fortnight; any book asked for being supplied. A list of those members of the Society who have availed themselves of this arrangement is given herewith, and I regret to observe is not as large as it should be, considering the number of members. As these loan volumes are changed in part every week it will not be possible to give a list of these as heretofore, suffice it that the latest and most popular works in medicine and surgery can now be seen in the Society's Library.

HERBERT W. CHAMBERS,
Hon. Librarian.

December, 1903.

[1] "A Pocket Book of Clinical Methods." By C. H. Melland, M.D., M.R.C.P., Physician to the Ancoat's Hospital, Manchester. Pp. 88. Bristol: J. Wright and Co., 1903.

[2] "The Examination of the Urine." By J. K. Watson, M.D.Ed. London: The Scientific Press, Ltd., 1903.

List of Subscribers to the Library, 1903-4.

The President.
Dr. Arthur.
Dr. Ball.
Dr. Bagram.
Dr. Brinton.
Dr. Buttar.
Mr. Baldwin.
Mr. Blake.
Dr. Challis.
Dr. Dendle.
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Dr. Elliott.
Mr. Eccles.
Fleet-Surg. French.
Mr. Gillingham.
Fleet-Surg. Hoskyn.
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Dr. Moullin.
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Dr. Pattison.
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Mr. Patmore.
Dr. Russell.
Dr. Saunders.
Dr. Shuter.
Dr. Sinclair.
Mr. Savery.
Mr. Simpson.
Mr. Townsend.
Dr. Walter.

Books Received.

Practical Guide to Surgical Bandaging and Dressings. By W. Johnson Smith, F.R.C.S. London: The Scientific Press, Ltd.; Philadelphia: J. B. Lippincott Company. (No date.)

Handbook of the Diseases of the Eye and their Treatment. By Henry R. Swanzy, A.M., M.B., F.R.C.S.I. Eighth Edition, with illustrations. London: H. K. Lewis, 1903.

Essentials of Pelvic Diagnosis with Illustrative Cases. By E. Stanmore Bishop, F.R.C.S., and an Appendix on Examination of the Blood, by Chas. H. Melland, M.D. Lond., M.R.C.P. Bristol: John Wright and Co., 1903.

A Manual of Ophthalmic Practice. By Charles Higgens, F.R.C.S. Second Edition, revised and edited by Arthur W. Ormond, F.R.C.S. Illustrated. London: H. K. Lewis, 1903.

Studies in Laboratory Work. By C. W. Daniels, M.B., M.R.C.S. London: Bale and Sons, 1903.

Doctors and their Work, By R. Brudenell Carter, F.R.C.S. London: Smith, Elder and Co., 1903.

The Medical Examination for Life Assurance. Third Edition. By F. de Havilland Hall, M.D., F.R.C.S. Bristol: John Wright and Co., 1903.

A Practical Text-book of the Diseases of Women. By Arthur H. N. Lewers, M.D.Lond., F.R.C.P. Sixth Edition. London: H. K. Lewis, 1903.

The Examination of the Urine. By J. K. Watson, M.D.Edin. London: The Scientific Press, Ltd., 1903.

The Prevention of Consumption. By Alfred Hillier, M.D., C.M. Revised by Professor R. Koch. Price 5s. Pp. 225. London: Longmans, Green and Co., 1903.

A Manual of Medicine. Edited by W. H. Allchin, M.D.Lond., F.R.C.P., F.R.S.Edin. Vol. v. Diseases of the Abdominal Organs. London: Macmillan and Co., Ltd., 1903.

Physiognomy of Mental Diseases and Degeneracy. By James Shaw, M.D. Bristol: J. Wright and Co., 1903.

A Pocket Book of Clinical Methods. By C. H. Melland, M.D., M.R.C.P. Bristol: J. Wright and Co., 1903.

Books from Mr. Keetley, with various Hospital Reports.

THE POST-GRADUATE COLLEGE.

BY THE DEAN.

THE Winter Session commenced on Tuesday, October 13, when the College was honoured by having Sir William Church, Bart., to deliver the opening address. A large number of Post-Graduates and visitors were present, amongst whom were the Director-General of the Naval Medical Service (Sir W. Norbury), the Assistant Director-General of the Army Medical Service (Surg.-Gen. Keogh), Sir Alfred Cooper, and several members of the Board of Management of the Hospital. Sir William Church delivered a very interesting address on "Medical Legislation and Medical Education."

During the past three months the attendance has been very large, the total number who have attended being 78, in addition to the Life Members, who now number 60. Amongst these have been 7 officers in the Naval Medical Service, 3 in the Royal Army Medical Corps, and 4 in the Indian Medical Service.

It is hoped that the arrangements for teaching bacteriology and pathology will be greatly improved after this year, since the Hospital has agreed to appoint a pathologist to devote his whole time to the laboratory, and also to provide better temporary laboratory accommodation pending the building of the large laboratory and museum.

There has again been a large attendance in special classes,

and they have been held in the following subjects: Throat and Nose Diseases (two classes), Ophthalmoscopy and Retinoscopy (three classes), X-rays (two classes), Gynæcology, Anæsthetics and Intestinal Surgery (two classes). Classes in the same subjects will again be held after Christmas.

We wish to offer our congratulations to Dr. Swanson Sprent on having obtained the degree of M.D.Durham, and Messrs. E. R. Townsend, A. D. C. Cummins, and A. R. Davidson, on obtaining commissions in the Naval Medical Service at the recent competitive examination. We shall hope to see these gentlemen again when they receive their three months' study leave.

It is with great regret that I have to record the death of Col. W. B. Allin, R.A.M.C., who was one of the best friends of the Post-Graduate College, and one who not only worked for a year at the College, but persuaded a number of other officers in the Royal Army Medical Corps to come here. He was very popular with all the surgical staff and they will all feel deep regret that he has passed away.

The following is a list of gentlemen who have attended during the past three months. An asterisk is placed against the names of Life Members :—

S. H. Allen (Melbourne).
*L. H. Armstrong (Ripon).
Ali Akbar (Teheran).
*D. Arthur M.D. (Shepherd's Bush).
*A. Baldock, M.B. (Earl's Court).
J. H. H. Baillie (New Zealand).
Penrose J. Bancroft (Aymesbury).
*W. E. Barton (Streatham).
*G. J. Bagram (Bayswater).
N. C. Beaumont (Barnes).
H. W. Beech (Putney).
G. L. Bell (Melbourne).
*Deputy Insp.-Gen. Bentham, R.N.
S. O. Bishop (Assam).
Staff-Surgeon Jas. Bradley, R.N.
*R. D. Brinton, M.D. (South Kensington).
*H. F. Browne, M.B. (Thames Ditton).
E. J. Brown, M.B. (Melbourne).
A. G. Bryden (Bayswater).
*W. M. Burgess (Harlesden).
*M. G. Cadell (Bayswater).
R. J. Cahill (Dundrum).
*Capt. Carmody, R.A.M.C. (ret.).
*Major E. R. W. Carroll, I.M.S.
Lt. Oswald Challis, R.A.M.C.
W. Chancellor (Banbridge).
Francis W. Clarke (Hong Kong).
*Lt.-Col. Clutterbuck (Newcastle).
F. H. Cooke (Dublin).
B. Connell (Croydon).
Staff-Surgeon E. Cooper, R.N.
*J. E. Coulson (Fulham).
J. S. Curgenven (Lancaster Gate).
Carmel D'Amico (Malta).
Frank Dendle (Isleworth).
E. A. De Ravin (Melbourne).
*L. Dobson, M.D. (West Kensington).
Hampton A. Dougan (Portadown).
E. G. Dru Drury (South Africa).
W. M. Eaton (Reading).
C. W. Emlyn (Bayswater).
*A. St. Aubyn Farrer (Paddington).
Giusseppe Faujas (Florence).
*W. H. Fitzmaurice (Dunmanway).
J. M. Flavelle (San Remo).
*Fleet-Surgeon A. M. French, R.N. (ret.).
W. E. Fry (Hammersmith).
*D. Gault, M.D., F.R.C.S.E. (New Zealand).
*H. M. Gay (Travelling).
Edmund Gonin (Crawley).
J. Leslie Gordon (Tooting).
*A. J. Grant, M.D. (West Kensington).
*W. Grantham-Hill (Chiswick).
Capt. J. W. Grant, I.M.S.
*C. H. Haines, M.D. (Kensington).

*C. Hancock, M.D. (Leytonstone).
H. Harding (Shepherd's Bush).
*W. Allan Harmer (Tonbridge).
*N. Heard, M.B. (Chiswick).
Major Hendley, I.M.S.
A. G. Heron (Belfast).
T. M. Hockon (New Zealand).
*W. Culver James (Kensington).
Major J. C. Jameson, R.A.M.C.
Capt. Johnson, R.A.M.C. (ret.).
Fleet-Surgeon A. J. J. Johnston, R.N.
Surgeon L. Kilroy, R.N.
R. A. Kirby (Westminster).
*W. B. Kirkaldy, M.D. (Kensington).
James Kitchin (Leven).
*Sir W. Kynsey, C.M.G. (Chideok).
W. S. Laidlaw (Chislehurst).
B. Lane (Limavady).
M. E. Leicester (Bayswater).
*T. M. Legge (Temple).
*T. Ligertwood, M.D. (Chelsea).
Chas. Lovegrove (West Kensington).
Lt.-Col. Lougheed, R.A.M.C., C.M.G.
*J. Lynes (West Kensington).
*A. Barclay Lyon, M.D. (Hammersmith).
Norman Macdonald (Harlesden).
D. J. MacRae (Belgravia).
Jas. MacCutcheon (Dublin).
*G. Maguire, M.B. (Richmond).
*W. Hooper Masters, M.D. (London).
*E. B. McDougall (Walton-on-Thames).
*J. B. McKay, M.D. (London).
H. J. McNickle (Vauxhall).
*D. F. Maunsell (South Kensington).
A. R. MacGregor (Hampstead).
Jas. F. Merrillees (Melbourne).
Fleet-Surgeon R. Miller, R.N.
J. A. Mills (Newry).
E. J. Minchin (Travelling).
Harrison Mitchell, M.D. (Cockermouth).
Major Molesworth, I.M.S.
*B. W. Mudd, M.B. (St. Pancras).
Zebulon Mennell (Kensington).
W. F. Nolan, M.D. (Kensington).
*W. Norbury (Ealing).
*W. R. Olver, M.B. (New South Wales).
C. Ormerod (Croydon).
H. M. Page (South Kensington).
HCompton Parsons (New Zealand).
W. Harland Peak, M.D. (Hampstead).
*A. F. Penny (Chelsea).
Staff-Surgeon H. L. Penny, R.N.
H. Manning Periera (Tooting Graveny).
*R. D. Pollock (Acton).
J. Fletcher Porter (Mile End).
J. Reid (Bandon).
*A. Renny (Southampton).
*A. Rideal, M.D. (Twickenham).
*Patrick Robertson, M.D. (Canada).
Lt.-Col. Robinson (Scots Guards).
*A. Tait Robinson (Hyde Park).
*Neil Robson, M.B. (Bayswater).
G. Q. Richardson (Dublin).
*F. E. Rock, M.D. (Hammersmith).
*T. Mackay Ross, M.D. (Fulham).
F. C. Sampson (Hammersmith).
G. C. Sandford (Shrewsbury).
*Lt.-Col. Silcock, I.M.S.
Allen Simpson (Chiswick).
*G. A. Garry Simpson, D.P.H. (Acton).
*A. Ross Sinclair, M.D. (Parson's Green).
Major B. J. Singh, I.M.S.
*W. Slater, M.D. (Epping).
S. L. J. Steggall (Costa Rica).
*H. H. Sturge (Maida Vale).
*E. Swain (Hampton Hill).
Fleet-Surgeon E. B. Townsend, R.N.
Alex. Urquhart, M.D. (Shepperton).
*L. A. Walker, M.D. (Notting Hill).
W. W. Walker (Kensal Rise).
*H. W. Walter, M.D. (Brentford).
Geo. Watt (Australia).
M. F. White (Dundee).
*J. Williamson, M.B. (Putney).
J. G. Wiseman (St. Margaret's-on-Thames).
Fleet-Surgeon J. H. Whelan, R.N.
*A. P. Woodeford (Shepherd's Bush).
Fleet-Surgeon W. R. M. Young, R.N.
S. H. Belfrage (Montague Place, W.

Miscellaneous Extracts.

TREATMENT OF SEPSIS.—Dr. J. Wernitz reports four cases of cure of acute sepsis by Hegar's irrigation method. One was a case of acute peritonitis from a salpingitis, one of acute sepsis after labour, two of acute sepsis after abortion. The method consists in almost constant irrigation of the rectum with a saline solution (½ to 1 per cent.). A rectal tube is connected with an irrigator, which is lowered or raised according to the intrarectal temperature. If the latter rises, the inggator is lowered, and *vice versâ*. About one half of the fluid is absorbed, and to this fact much of the value of the treatment is due, although the constant cleansing of the rectum and the continuous passage of flatus are important aids. This can be kept up for hours at a time with no disagreeable result to the patient. The absorption is made evident by the increased secretion of urine, the disappearance of the thirst and of the dryness of the mucous membranes, and the appearance of sweating, which is not dangerous, as collapse is impossible. Theoretically, all that is desired, therefore, in systemic intoxication is accomplished without overloading the blood-vessels suddenly as is the case when an intravenous infusion is done. The sweating is distinguished from that of collapse by a continued good and improving pulse, even as the temperature sinks to the normal. The temperature is likely to rise if the irrigation is discontinued, but this is never accompanied by a chill. The subjective sensations of the patient are improved at once. The author recommends the measure for the treatment of eclampsia, although he has never tried it for the relief of this condition.—*New York Medical Journal.*

THE PREVENTION OF GONORRHŒAL INFECTION.—By Dr. L. J. Jacobson.—The author says, basing his statement upon a study of the literature of the question, that a 20 per cent. solution of protargol in glycerine, introduced into the urethra as soon as possible after the act of copulation, prevents the occurrence of gonorrhœal infection. A number of appliances have been devised for the convenient employment of this method, but the great disadvantage of all of them lies in the fact that they are intended to be used again after returning the syringe or injection-tube into the bottle of solution in which it is carried. A procedure that involves the use of an instrument that had been in contact with a supposedly infected surface is certainly dirty, if not faulty. The only

rational method, according to the author, is one which provides for a single use of the appliance. With this purpose in view he constructed a tube made of thick " thermometric " glass, which was dilated at one end in the form of a bulb, the latter holding about four drops of a 20 per cent. solution of protargol in glycerine. The upper end of the tube was provided with a flange over which was fitted a rubber cap. The olivary end of the appliance was also closed with a rubber cap, which was removed just before using. Pressure upon the upper end through the rubber cap drove the fluid into the meatus and the solution thus penetrated into the fossa navicularis. A number of these tubes, charged with solution, may be carried in a case. The size of this tube is such that not more than four drops of the solution can be injected at one time, and so the patient is not tempted to increase the amount of the injection in his zeal. The dilatation at the end of the tube is so constructed that the olivary end cannot be introduced further than is necessary, even by an inexperienced person. The author also recommends for women a method of preventing gonorrhœal infection that may give good results. It consists in the use of gelatine capsules containing the solution of protargol in glycerine, which should be introduced into the vagina after, or better before, coitus, and in the use of antiseptic irrigations in order to remove any gonococci from the external genitals.—*Roussky Vratch*, 1902; *New York Medical Journal.*

NOTES ON NEW PREPARATIONS, &c.

Messrs. Burroughs, Wellcome and Co., have recently introduced :—

(1) *Soloid " Hemisine,"* a new preparation of suprarenal gland substance. It represents the hæmostatic principle of suprarenal gland in a stable, soluble and convenient form, and is of constant composition. These tabloids are composed of " Hemisine " and sodium chloride, and in such proportions that the tabloid dissolved in 84 minims of boiled water represents a saline solution of 1—1,000 of the active principle, a convenient strength in which to use the drug. " Hemisine " possesses in addition to its hæmostatic properties a distinct anæsthetic action. Its use is indicated in all cases where other preparations of the suprarenals are employed. We have tested its effect in severe hæmorrhage

and have found it wonderfully prompt in checking the bleeding. No ill-effects have, so far, been observed to accompany its use. We understand that Messrs. Burroughs and Wellcome intend to prepare larger soloids to make larger quantities of solution when required. One of the great advantages of this form of suprarenal extract is that as much as is necessary can be used at a time, and the remainder of the tabloids do not deteriorate. With fluid extracts the whole quantity—the bottle once opened—must be used speedily, as the contents soon become decomposed.

(2) A convenient form for the administration of mercury combined with iodide of potassium is the tabloid hydrarg. perchlor., gr. 1-32, and potassii iodid., gr. 2½. A tabloid of double the strength is also prepared, and the absolute accuracy of the dosage, combined with the convenience of the preparation, will render these tabloids of great service where the combination of the drugs is required.

(3) "Tabloid" Antifebrin Compound. The formula for this preparation is as follows :—

℞	Antifebrin (acetanilide)	gr. ii.
	Caffeine citrate	gr. i.
	Camphor monobromide	gr. i.

This combination is useful in neuralgic affections, particularly in those where a rheumatic tendency is observable. Messrs. Burroughs, Wellcome and Co., claim that it has been found of service in sea-sickness, and to alleviate the pains of acute rheumatism.

(4) A very convenient form for the administration of iron and arsenic is the "Tabloid, Iron, Arsenic and Digitalin," prepared by the same firm as the above preparations. The formula is as follows :—

℞	Ferri phosphatis solubilis	gr. iii.
	Acidi arseniosi	gr. $\frac{1}{100}$.
	Digitalini	gr. $\frac{1}{100}$.

The addition of the small dose of digitalin is advantageous in those cases of anæmia where the heart's action is irregular and a certain amount of œdema of the lower extremities is present. It is perhaps needless to add that such remedies should only be prescribed by the physician and continued under his close superintendence.

International Plasmon, Ltd.—We have been favoured by this Company with specimens of their Plasmon Tea. The tea is of good quality, and with it has been incorporated 10 per cent. of Plasmon. The makers claim that by this mixture the greater portion of the tannin is neutralised,

and certainly this appears to be the case, for after standing a considerable time after infusion, no trace of bitterness is perceptible in the solution. The tea is palatable and is of course nourishing in proportion to the amount of Plasmon incorporated with it. The Plasmon in the tea gives it a milky appearance when made, but if desired further milk can be added. It is hardly necessary to speak of the well-known nourishing properties of Plasmon, but the combination of it with tea is a novel and useful method of administering this excellent product.

Messrs. Fry and Co., Bristol.—Messrs. Fry have introduced a combination of milk and cocoa in competition with the numerous preparations of the same character at present in the market. This preparation is very simple in use, the addition of boiling water being alone necessary to produce the beverage. It is of excellent flavour and appearance, sufficiently sweetened for ordinary consumption, and very moderate in price. It compares well with other milk cocoas, and the high standing of the firm's products is enhanced by this preparation.

Prideaux's Pure Casein and Life Food Company, Ltd.—This firm has submitted for consideration a new preparation, "Casumen Arrowroot." By the addition of casumen to a pure arrowroot, the food value of the latter is immensely enhanced. The preparation is a mixture of arrowroot and 31 per cent. of Prideaux's pure, soluble, milk casein, the proteid value of the arrowroot being thus increased from a little over 1 per cent. to about 30 per cent. The analysis of this preparation is given as follows:—

Moisture	14·15 per cent.
Mineral matter	1·05 ,,
Milk fat	1·20 ,,
Pure proteid...	28·20 ,,
Carbohydrates	55·40 ,,

From this it will be seen that casumen arrowroot is a very powerful food, and is of infinitely greater nutritive value than arrowroot pure and simple. It should form a valuable addition to the dietary in the early days of convalescence or where fluid diet is essential.

Messrs. Callard and Company, 65, Regent Street.—These well-known manufacturers of diabetic foods have forwarded several of their specialities. Amongst the more novel of these foods for diabetics we are glad to notice "Sugarless Marmalade." This preparation is excellent in flavour and

is absolutely free from sugar, and is a most welcome adjunct to the diabetic dietary.

It is impossible in the space at our disposal to enumerate the immense variety of biscuits and flours absolutely starch-free, manufactured by Messrs. Callard. One point to which attention must be drawn is the price. This is, of necessity, somewhat high, but the makers point out that the processes of manufacture inevitably raise the price. The great desideratum is to get rid of the starch, and any practitioner can rest assured that in the foods advertised as starch-free by this firm, starch is really absent. The addition of a drop of iodine will prove the assertion very speedily.

Another preparation is "Ivory" Jelly. This is said to contain a much higher proportion of nutriment than calves'-foot jelly, and may be had either plain or flavoured with lemon and sweetened. It is very rich in phosphates and is an agreeable food.

Particular mention may be made of "Casoid" Meal Bread. Professor Ernest J. Parry's analysis of this Bread is as follows :—

Moisture	42·2 per cent.
Fat	13·9 ,,
Cellulose	2·1 ,,
Ash	2·9 ,,
Proteids	38·9 ,,
	100·0 ,,

The bread, after ten hours' hydrolysis with sulphuric acid, gave no reaction with Fehling's solution. Carbohydrates, therefore, are entirely absent.

Cadbury's Cocoa.—Messrs. Cadbury and Company have forwarded samples of their pure cocoa. Comment upon this excellent preparation is hardly needed. It suffices to say that it amply maintains its high standard of purity and strength. When we add that it is a pure cocoa of the highest quality, nothing more need be added.

"Vinsip."—Samples of this preparation have been submitted to us for examination by the manufacturers, Vitalia, Ltd., 5, Albion Place, Blackfriars. "Vinsip" is a hæmatinic obtained from a basis of fresh defibrinated ox-blood, all disagreeable taste being removed by a special process. It is preserved by the addition of dilute alcohol (15 per cent.) and boric acid (0·8 per cent.). Vinsip is agreeable in appearance and quite palatable. It is very readily taken by patients of all ages. We have tested its effects in cases suffering from

loss of blood from severe operations, and in anæmic conditions due to other causes, and find that it is undoubtedly a valuable hæmatinic agent. Containing the proteids of blood serum it is also a food very quickly digested and absorbed, and therefore of value in cases where there is difficulty of assimilation. We have no hesitation in recommending its use in all cases where the double effect of an easily assimilated food and a hæmatinic is required.

The Shredded Wheat Company.—Those of our readers who were present at the last exhibition of the Society will remember the exhibit of the Shredded Wheat Co. Triscuit and Shredded Wheat Biscuits are two very palatable cereal foods. They are baked entirely by electricity and are absolutely pure. The peculiar crispness of these articles renders them very agreeable, and the pronounced flavour somewhat like that noticed on eating grains of wheat is quite unique.

NOTES AND NEWS.

MEMBERS of the Society will be pleased to hear that Professor Halsted, of the John Hopkins University, Baltimore, has accepted the invitation to deliver the Cavendish Lecture before the Society, in June, at the Town Hall, Hammersmith, on the night of, and preceding, the Annual Conversazione.

IT has been decided by the Council not to hold the Annual Discussion in February, owing to the lack of interest which has been evinced in it by members in the past. Instead, Dr. Samuel West has promised to read a paper on Physiological Albuminuria. The subject being one of such great interest, a good debate may be confidently expected, and it is hoped that there will be a large attendance. We are also requested to draw the attention of members to the fact that the next Clinical Meeting will be held on January 8, instead of the 1st.

WITH this number the JOURNAL enters on the ninth year of its existence. Its career has been one of steady progress and increasing usefulness, and we feel confident that members of the Society will heartily co-operate to secure its continued success.

SHOULD any member be purchasing articles advertised in the columns of the Journal, the Editorial Secretary would like to remind them that they would be performing a considerable service if they would mention that their attention had been drawn to such articles by that advertisement.

ALL those interested in the investigation of cancer will await further details of the serum treatment of Dr. Otto Schmidt, which was brought before the Abernethian Society in a paper read by Dr. Harold Johnson. The idea being based on the lines of serum-therapy seems a promising one, provided that the micro-organisms used in the production of the serum can be shown to be the cause, and not merely the concomitants, of the disease. One would be led to expect from past experience that the "passive immunisation," as exemplified by the serum treatment of diphtheria, would prove more efficacious than the "active," which was found to be inefficient in the prophylaxis of enteric fever in the late South African campaign. It is distinctly unfortunate at this early and uncertain stage of the investigation that the subject should be vaunted in the columns of a halfpenny newspaper as the latest "cure" of cancer, following so quickly on the treatment of malignant disease by an infusion of violet leaves, which was so confidently advanced as a specific by the same journal.

THE investigation into the pathology of tropical diseases is at the present day engaging the attention of some of our most skilled observers, and much money and time is being spent, in many cases, with gratifying results, such as in malaria, yellow fever, and, still more recently, sleeping sickness. But we think a careful perusal of the Registrar-General's returns of the death-rate of the United Kingdom would show that we have in our midst a disease, namely measles, which, although not considered worthy of notification, yearly slays its thousands, to say nothing of those who are thereby severely handicapped in the struggle of life. Could not the light of scientific research be turned more strongly on this terrible but underestimated scourge? In this connection we have often been struck by the contrast between the precautions considered necessary in dealing with scarlet fever, which, in our experience, seems to be becoming progressively less severe in character, and those adopted in the case of measles, which is at least as fruitful a source of damage to the community. Surely, at a time when large and costly expeditions are sent out to the Tropics, some-

thing might be done with the superabundant morbillic material at our very doors. The following quotation from Dr. Theodore Thomson's report to the Local Government Board fully bears out our contention. Referring to the preventative measures for the control of measles, Dr. Thomson states: "Among these difficulties are, on the one hand, the *extremely infective character* of measles, especially in the early stages before the nature of the disease is declared, and on the other, *the slight estimation* in which measles is held by the general public. This latter at least falls within the scope of the general practitioner to remedy, and not until this is effected can it be expected that the public will take kindly to the notification of the disease, which, in the opinion of the best authorities, is the first step necessary for its eradication."

THE use of chloroform in the preparation of vaccine lymph, as suggested by Dr. Alan B. Green, seems to us of sufficient importance to merit a somewhat detailed description. As is well known, it has been customary to use glycerine for the purpose of eliminating extraneous bacteria from lymph. The objections to this process are not only that it requires at least four weeks to effect this purpose, but during which time the lymph itself may undergo deterioration. Both these objections are overcome by the use of chloroform in the place of glycerine. Briefly, the process consists in passing chloroform vapour through an emulsion made by triturating vaccine pulp with sterile water. Extraneous micro-organisms are thereby destroyed within six hours. The method employed is as follows: Sterilised air is passed through pure liquid chloroform, whereby the air becomes charged with chloroform vapour. This mixture of air and chloroform vapour is then passed through the vaccine emulsion which is contained in a series of test tubes connected to each other by glass tubing. The emulsion in all the tubes thus in turn becomes saturated, provided that the current be sufficiently strong to keep the contents of each tube in active movement. It is recommended that the process be continued for six hours, although this is probably longer than is necessary; for it has been found experimentally that a rapid and marked germicidal action is exerted by chloroform vapour on the non-spore bearing extraneous bacteria of vaccine. This is in marked contrast to the elimination of bacteria by the glycerine process, which rarely occurs before the fourth week after mixture, and frequently much later. Not only is the value of this method borne

out by experimental work in the laboratory, but it is clearly shown by the results of vaccinations performed both on the calf and the human being, which have proved entirely satisfactory. It is obvious that the advantages of this process would be very evident in times of urgent demand for pure lymph, such as occurred during the late small-pox epidemic, where the efficient purification of lymph by glycerine required at least four weeks.

It is sometimes a useful thing to see ourselves as others see us. The following excerpts from some pamphlets sent to us by an anti-vaccinator, who styles himself not only a Medical Botanist, but also a Humble Servant of Almighty God, may serve to bring to our notice certain phases of character which hitherto may have escaped our observation. We, in common with all "blood corrupting vaccinators," are stated to use "nothing but poisonous decomposed matter taken from ulcers in unhealthy calves." We learn that "poisonous matter is often taken from boils, tumours, abscesses, &c., in unhealthy human beings, passed through the calf, and called pure calf lymph." We are further told that "the King's household and the nobility are not vaccinated with small-pox matter, but with something which will irritate the wound and will set up a little inflammation to make them believe it is effectual or successful vaccination. Doctors also undergo the same kind of process in order to deceive the public"; but in other people by "polluting healthy human blood with filthy poisonous matter, in one season doctors sow the seeds for a successful harvest during the remainder of their lives." It is stated that besides "producing diseases innumerable, such as rickets, liver disease, diseased bone, arm disease, internal diseases, leprosy, and cancer," that we are responsible for the death of 100,000 people in the United Kingdom every year. Again, "matter taken from greasy-heeled horses, which is consumption, is used to vaccinate people with." Finally, "all such dishonest, untruthful, deceitful and wicked people (doctors) will find themselves on the left hand of God on the Great Judgment Day, and will then receive their just reward." In conclusion, £1,000 is offered by this worthy gentleman should these statements be proved incorrect, thus providing a possible solace to any of our profession who has found this particularly healthy year a trying one to his banking account.

THE

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Original Communications.

ON ALBUMINURIA IN THE APPARENTLY HEALTHY; PHYSIOLOGICAL OR FUNCTIONAL ALBUMINURIA SO-CALLED.

By Samuel West, M.D., F.R.C.P.

One of the chief difficulties of the subject confronts us on the very outset. It is the name by which the condition is to be described. I have chosen *albuminuria in the apparently healthy* because it represents the facts, viz., that there is albuminuria, and that the albuminuric person is in other respects apparently healthy. This name also suggests the practical difficulty which arises in every case, viz., the difficulty of being sure that the person is actually and not only apparently healthy.

The terms physiological or functional albuminuria are objectionable, for they beg the very question which requires to be proved, viz., that the albuminuria is physiological or functional, and not pathological. To use terms which express partly facts and partly opinions is bad in principle, for while the facts are correct the opinions may be wrong, and at any rate their value will vary according to the person who holds them.

A priori, one might reasonably expect that albuminuria would be common in health, yet it is not so. Indeed, in

the ordinary acceptation of the term physiological albuminuria does not occur. The holding back by the healthy kidney of the albumen circulating in the blood-vessels is practically perfect. As to how this is effected, we know but little. We may assert, at any rate, that when albuminuria does occur it is not a secretion, for the cells have certainly essentially nothing to do with it, but it is a transudation.

We might expect the kind of albumen to be of importance, and that some forms of albumen would transude more easily than others. This does not, however, appear to be the case either. We have, it seems, to deal but rarely with any other form than serum-albumen—for even nucleo-albumen, which is usually distinguished from serum-albumen, is probably only a modification of it—a combination with chondroitic-sulphuric acid, a substance which is normally present in the urine.

More importance is to be attached to the nutritional conditions of the walls of the blood-vessels, of the lymphatics, and possibly of the tubules themselves. This is largely affected by chemical substances circulating in the blood, many of which have a distinctly selective action upon special parts. For example, the absorption of certain poisonous substances from the intestines may lead to remarkable changes in the skin, as is seen in the various forms of erythema, and these may be associated with the occurrence of albumen or even blood in the urine, which, like the affections of the skin, are transient. It is the fashion of the day to refer these conditions in the skin to nervous disturbances, the more remarkable being sometimes designated angio-neurotic conditions, but the proof that the nervous system is responsible for these changes in any way is certainly defective.

Alteration in the tension of the vessels plays probably a more important part. The old division of vascular lesions into active and passive congestion represents a truth. The former is an acute process associated with the arteries and closely allied to inflammation. Possibly not only high arterial tension but low tension too may lead to transudation—the former by increased pressure, the latter by leading to dilatation and consequent stretching of the vascular walls sufficient to allow of leaking.

These conditions of arterial tension, especially as they vary and fluctuate so greatly, must of course be largely under the influence of the nervous system. Venous congestion is probably merely mechanical extravasation occurring into the lymphatics of the kidney just as it does into the subcutaneous tissue, with subsequent leaking or oozing from the lymphatics or interstitial tissues into the tubules.

I have referred to these more or less physiological conditions because they may throw light upon the subject we have under consideration.

It is stated that albumen may be demonstrated in the urine of every one without exception. This statement may be true in a sense, but it has no bearing whatever upon the present question, for it is not true that albumen can be shown by the tests as ordinarily used in the urine of everyone just as it is passed. At the same time it appears to be a fact that if large quantities of urine shown to be free from albumen by the ordinary tests be evaporated, concentrated, and the residue dissolved, a tiny trace of albumen may be demonstrated by delicate tests. The explanation of this is simple. There are in the urine normally a few cells derived from the urinary passages, sometimes more, sometimes less. If these be concentrated, collected and dissolved as described, the reaction of albumen will be obtained. This is the only truly physiological albuminuria, and it has no more bearing upon the subject we are discussing than the demonstration by similar methods of tiny traces of sugar in normal urine has upon the question of diabetes.

In the strict sense of the term, albuminuria is never physiological at all, but always pathological, *i.e.*, indicative of some abnormal or pathological condition, though the individual may be apparently healthy.

The causes of albuminuria fall into three groups: (1) The accidental, in which the urine is normal when secreted, and the albumen is added to the urine on its way out. (2) The renal, in which there is some more or less obvious cause for the albuminuria in the kidney itself. (3) The pre-renal group, in which the exciting cause lies outside the kidney and is to be traced to some general or local pathological

condition, *e.g.*, in the heart or circulation, in the blood, in some febrile state, &c.

The following table shows the relation of these to physiological albuminuria :—

Renal	...	**Obvious.**	
		Not obvious	**Functional albuminuria.**
Pre-renal	...	**Not obvious**	**Physiological.**
		Obvious, *e.g.*, morbus cordis, fevers, &c.	
Post-renal	...	**Accidental, from urinary or genital passages, &c.**	

Functional albuminuria may therefore be described as albuminuria in which the cause is not obvious. The diagnosis is made by the method of exclusion, the most difficult of all methods, for it is often impossible to be sure that all the causes have really been eliminated.

In the accidental group, the albuminuria might be due to accidental contamination from the genital passages. This is specially likely to be the case in the female, but could be easily excluded by obtaining a clean catheter specimen. Yet in men also albuminous discharges might be mixed with the urine from the spermatic glands and ducts, from the prostate or urethra. With care in obtaining the specimen these causes also could be excluded.

The influence of sexual excitement and masturbation in relation to functional albuminuria has been much discussed, but there is no proof that these conditions have any effect. Indeed, the evidence seems to me to point strongly in the opposite direction.

It is by no means easy to eliminate all causes of irritation in the urinary passages, and the difficulty is greatest perhaps where the seat of irritation is the pelvis of the kidney, for here a tiny calculus, especially of uric acid or oxalates, may lead to transient albuminuria, or even hæmaturia, and nothing else, though the subsequent passage of the calculus and the final disappearance of these symptoms afterwards gives the true explanation. Transient albuminuria may also be due to the passage of uric acid gravel or oxalate crystals without the presence of any actual calculus. From what is observed in gout it is clear also that the strongly acid and concentrated urine passed in the acute stage is itself sufficient to cause temporary albuminuria, even in considerable amount, but in chronic cases it is of course not clear that the kidneys are sound.

In the pre-renal group, again, it is probable that toxins, absorbed from the intestinal tract or generated within the body itself, play an important part, and where transient albuminuria follows the ingestion of certain articles of food there may be little or nothing else to suggest its origin.

The subject of functional albuminuria has attracted a great deal of attention for many years, and of the conditions under which it occurs a good deal is known. Many of the facts about functional albuminuria are sufficiently indicated by the names given to it. *Occasional*, *intermittent*, *remittent*, are terms which point to its irregular occurrence. *Cyclical* refers to its regular recurrence at certain times, or rather under certain conditions, which regularly recur; such as change of position, as in rising in the morning, whence it has been called *postural*; while *dietetic* indicates the effect of food and digestion. Unfortunately, none of these terms are satisfactory, for all the conditions to which they refer may be met with in convalescence from acute nephritis, and are therefore no proof of what we want proof of, viz., that the kidneys are sound.

The frequency of functional albuminuria is variously stated by authorities. In amounts appreciable by ordinary methods with ordinary tests it occurs in about 10 per cent., or so. The higher percentages often recorded are reached by delicate tests and by special and repeated observations made *ad hoc*.

The importance and significance of albuminuria varies with the age.

It occurs frequently in new-born babes and infants, as well as in young children. In them it is probably to be attributed to the immature and unseasoned condition of their tissues in general. It has in most cases little significance, but further observations are much needed.

The largest number of observations is concerned with the next age group—that of boys at school—in which the average frequency seems to be about 20 per cent. The boys who form this group fall into two classes: the one florid, full-blooded, vigorous lads, with good or even high pulse tension; the other pale, flabby, not well-conditioned, with low pulse tension. The two groups probably present

differences in pathology and prognosis, and demand different treatment.

Upon the subsequent history of these cases further information is much needed, and can be best supplied by the family doctor, who can keep his eye upon them for many years. We know that in many of them the albuminuria completely disappears, while in others it may persist for many years without the health appearing to suffer. In others ill-health follows, and not always referable it would seem, to the kidneys.

The practical question which always arises is whether the school-life is to be interfered with. In each case this question has to be decided on its own merits; but as a rule it ends in leaving the lad at school, under supervision. Some risk has to be run, but generally the result proves satisfactory, and the health does not suffer.

In the young adult the same questions arise in relation to life insurance or appointments in business houses. At many banks or large offices the condition of appointment is that each applicant must insure his life. If albuminuria be present the life office either postpones the case or accepts it with an addition. The office consequently refuses to confirm the appointment, and the lad loses his berth. This often seems very hard, especially as it is clear that so many of these lads lose their albuminuria and remain in good health. Still some do not, and there is consequently a risk, which the insurance office is justified in declining to take; but I do think that the insistance upon such rigid rules by the bank or business house is not quite fair, for it inflicts much hardship upon the unfortunate lads, who after all may not have much the matter with them. The real significance of the albuminuria in young adults it is therefore very important to determine. It would be highly desirable if it were possible, as it unfortunately is not, at present, to distinguish in which of these cases the albuminuria is unimportant. If that is ever to be successfully done it will be largely by the observations made by the family doctor.

At the age period of 25 to 30 the frequency of albuminuria is at its lowest. After the age of 30 it rises with every year

of life, and with that rise the gravity also increases, almost *pari passu*, as is shown in the accompanying table, taken from my Lettsomian Lectures.

Ages Attained	Rate of following year		Ages Attained	Rate of following year	
	Rate from Figures given	Rate for Healthy Males		Rate from Figures given	Rate for Healthy Males
30	—	—	50½	3·70	1·97
32	1·53	1·06	52½	2·64	2·20
34	3·27	1·11	54½	3·74	2·43
36	3·33	1·16	56½	7·13	2·69

The numbers are too small to lay great stress on, but they show in a general way how largely the occurrence of albuminuria increases the risk of life. It apparently at the ages selected nearly doubles it.

I have already referred to the fact that all the features of functional albuminuria can be reproduced in convalescence from acute Bright's disease. Here it will be admitted that the kidneys are not completely sound, and we are thus introduced to the question which is the chief crux of the whole problem, viz., the difficulty in any given case of excluding latent kidney disease, especially granular kidney.

In granular kidney all the features of functional albuminuria may be reproduced; the albumen may be small in amount, not always present, and vary with posture and diet. But of course there will be in all well-marked cases other signs of granular kidney, which cannot be missed if looked for. Chief among these signs is arterial thickening. We may, I think, lay down the general rule that if, together with albuminuria there be associated arterial thickening, there must be some grave disease either of the arteries or of the kidneys too.

The term arterial sclerosis is greatly abused in the present day, and the subject thereby confused. There are two well-marked forms of arterial sclerosis which differ in their morbid anatomy and in their significance—atheroma in elderly persons and that associated with granular kidney in earlier life. The two affections may of course be associated together, but essentially they are different diseases. The arterial sclerosis of granular kidney is general or even uni-

versal; that of atheroma, though widespread, is more marked in particular parts of the arterial system, *e.g.*, the aorta and the vessels at the base of the brain.

The other diseases of arteries, such as syphilis or arteritis obliterans, are especially local and not general affections, and need not come into consideration in the present connection. It is to be regretted that in so many of the statistics of albuminuria no record is given of the condition of the arteries. Yet, if in a case of albuminuria the arteries be also thickened, the conclusion is justified that whatever the cause of disease may be, the patient is not really healthy, and cannot be suffering simply from functional albuminuria.

Now if we apply these considerations to practice in relation to life insurance of adults, they endorse the rules laid down—to reject all cases of albuminuria above the age of 40; to load heavily those between 30 and 40; to make some addition to those between 25 and 30; to postpone and watch all between 18 and 25; and, finally, to which I would add another, viz., to reject at once and at every age all those in which together with the albuminuria there is arterial thickening too.

I would sum up my remarks in this general proposition, that albuminuria is never truly physiological at all, but always pathological, though not necessarily renal, and with this concluding statement I would leave the subject in the hands of those who will take part in the discussion.

ADENOID GROWTHS OF THE NASO-PHARYNX; WHEN AND HOW TO OPERATE.[1]

By G. A. Garry Simpson, M.R.C.S.

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Mr. President and Gentlemen,—In 1868, W. Meyer, of Copenhagen, first drew the attention of the medical profession to the clinical importance of adenoid growths. Since then the naso-pharynx has received, and rightly too, a large amount of attention.

[1] A paper read before the West London Medico-Chirurgical Society.

Patients receive the greatest relief both immediately and in the hereafter by the removal of the growths in suitable cases, and an incalculable number of individuals at this present moment are useful members of Society, who would otherwise have become permanently deaf, besides suffering great inconvenience and discomfort. Those sufferers who have been neglected frequently bear ample evidence in their faces of the mischief done by adenoid growths in their childhood, which persists throughout life, although the growths themselves may have long disappeared.

The special and characteristic symptoms are widely recognised by practitioners, who are moreover frequently asked to give an opinion as to whether an operation is advisable. Under the circumstances I thought the question—when and how to operate—would be an interesting one for discussion.

I shall not enter into the causation or diagnosis of the disease, but keep my remarks to when I consider it is desirable to operate, and the various ways now in vogue for performing the operation. My statements will be based purely on the experience I have gained in the Throat Department of the West London Hospital and in private practice. It may, however, assist you to follow me more closely if I remind you that the lymphoid tissue in the vault of the naso-pharynx is known as the pharyngeal tonsil, or Luschka's tonsil; that it is especially well developed in children, but is liable to undergo hypertrophy, forming what are known as adenoid growths. Although there are exceptions to the rule, this lymphoid tissue has a tendency to atrophy as adolescence approaches.

These growths are found on the posterior, superior and lateral walls of the naso-pharynx. The fornix, viz., the upper curved part of the posterior wall, is where they are most frequently found. In shape they may be cristate, cylindrical or flat, their physical character varying from the locality in which they spring; thus the cristate form is found on the posterior wall, the cylindrical on the lateral walls grouped around the apertures of the Eustachian tubes. It is rare to find them on the side walls without meeting them on the posterior walls.

It has been calculated that 90 per cent. of children who

have enlarged tonsils also have adenoid growths; but the growths are frequently present without any hypertrophy of the faucial tonsils.

On the question when to operate, I will take the case of infants first.

The infant suffering from congenital adenoids is occasionally brought for treatment. The child is unable to suck without losing its breath, it also makes a good deal of noise in its breathing. Digital exploration is impossible, so that having excluded specific rhinitis, acute rhinitis, and congenital occlusion of both posterior nares—an exceedingly rare condition—I remove the growth with the smallest curette, otherwise the infant suffers considerably from its being unable to get the nourishment it requires.

In the case of older children, various indications guide me as to when it is desirable to operate. If a child suffers from acute rhinitis, the lymphoid tissue in the naso-pharynx shares in the general engorgement; there is possibly mouth-breathing, snoring and irritable night cough, and possibly some intermittent deafness from exudative catarrh of the Eustachian tubes and middle ear. A digital exploration at the height of the trouble discloses some swelling of the lymphoid tissue in the naso-pharynx. Frequently I find that after the acute symptoms have subsided, and the child undergoes a course of breathing exercises, the trouble subsides and nasal respiration is restored. But if this happy result does not take place, and the child keeps getting attacks of intermittent deafness following frequent attacks of acute rhinitis, with mouth-breathing and other troubles, I remove the growth, which will generally be found to have undergone a certain amount of cellular infiltration. Here I have a definite and urgent reason for operative interference; the repeated attacks of exudative catarrh of the Eustachian tubes causes a thickening of their linings, consequently the air does not readily enter the middle ear, and if the growths are not removed, retraction of the drum membranes will eventually take place, and in time permanent damage to the membrana tympani results.

Again, I frequently meet with cases of exudative catarrh of the middle ear in children, in which on digital explora-

tion a very little of the growth is felt on the posterior wall, the mischief being kept up by the adenoid tissue immediately around the orifice of the Eustachian tubes and in the fossæ of Rosenmüller. In these cases if no permanent benefit results from inflation with a Politzer's bag, I remove the offending lymphoid tissue. Certain cases of chronic suppurative otitis media with perforation of the drum membrane will often not clear up under ordinary treatment unless any attendant adenoid growth is removed. Such cases have generally started as an exudative catarrh, and subsequently become infected with pyogenic or pus-producing organisms, principally staphylococci.

Youths and adults in which the adenoids have worked their baneful influence on the membrana tympani, causing well-marked retraction, I find are frequently benefited by the removal of the growth, followed by a prolonged course of inflation and massage of the drum membranes. In such cases as these the nose will often be found to have shared in the general fibrosis and require treatment.

I always make it a rule to thoroughly examine the nasal cavity in every case of adenoid growths, for if any attendant nasal obstruction is overlooked and not treated, the operation may possibly fail to restore nasal breathing, hypertrophic rhinitis being frequently present. Very often in these older patients one is disappointed at the result of the operation, so far as restoring nasal respiration. Although the adenoids are cleared and the nasal obstruction removed, yet some of these patients will continue mouth-breathers for the greater part of their lives; but much can be done by steady perseverance.

I operate in every case in which a child is obviously suffering in health both mentally and physically. If they are habitual mouth-breathers, snore at night, and have suffocative attacks from imperfect oxygenation of the blood. Such children often suffer from a chronic nasal catarrh, with thick, tenacious mucus, and the nostrils will often be markedly contracted. The operation, if done in time, before marked hypertrophic changes take place within the nose, will help to restore nasal respiration. I find children who are backward in their speech greatly benefited by the opera-

tion, as are also those whose speech is dull, due to the growth interfering with the play of the soft palate. I operate in children who suffer from repeated attacks of bronchitis, laryngitis and asthma, if these growths are present.

With regard to reflex troubles, it is said that adenoid growths are a factor in the production of convulsions in young children, owing to the imperfect oxygenation of the blood. I may state that I have never found patients suffering from enuresis benefited by the operation.

A comparatively small amount of growth will frequently set up a post-nasal catarrh with an irritable cough, which may continue for months, disturbing the child's rest and alarming the parents. One generally finds that the little patient has been kept in a close room and dosed with cough mixture.

If the child is obviously suffering in health I advise an operation; but at the same time am careful to remove any accompanying granular pharyngitis that may be present, for these granules, which are composed of lymphoid tissue, will frequently of themselves continue the cough after the adenoids have been removed.

Before concluding the first portion of my address, let me state that I am guided as to operative interference by the duration, persistency and urgency of the symptoms. A moderate amount of adenoid growth frequently does no harm, and is often only a temporary engorgement of the already existing lymphoid tissue, and clears up under appropriate treatment. At the same time an eye should be kept on such cases for any further developments, which might be strong indications for the removal of the growths.

Treatment.—If the symptoms are such as not to demand an operation, I treat any nasal catarrh that is present with a suitable douche, and recommend breathing exercises to be carried out as follows: The child to be put on its back three times during twenty-four hours for half an hour at a time. The measurements of the chest are first taken at the end of deep inspiration and expiration, and a careful note made of them. The child is made to breathe through the nose as deeply as possible, of course the mouth being shut.

If these instructions are carefully carried out, in many cases a marked improvement takes place. It has been suggested as a simple method for the control of mouth-breathing at night, to stick a piece of silk isinglass court plaster across the closed lips. It can be quickly removed, and does not cause any local irritation.

If an operation is decided upon, after, of course, due consideration of all the symptoms, I order the following preparations: A smart purge a day or two before, with a view of lessening hæmorrhage. I always enquire of the parents if there is any tendency to hæmophilia. The teeth to be well washed with Sanitas or some disinfectant a few mornings before, and the mouth well washed out with boric lotion shortly before the operation.

I see that the patient is in as good health as possible, and take care to render my hands and instruments thoroughly aseptic, for in this operation a raw surface is produced in what is practically an incubating chamber. I prefer to operate in the early morning, the patient being kept without breakfast, or I allow some beef tea three or four hours beforehand. I also examine to see that there are no loose teeth, especially milk teeth. Besides the danger of their being dislodged with the gag, the parents are often annoyed should a tooth be missing. If a tooth is loose I get the parents' consent to its removal before introducing the gag, the child being under the anæsthetic.

With regard to the choice of the anæsthetic. If the patient is over 10 years of age, and adenoids only are to be removed, I prefer gas. Its chief drawback is the shortness of the anæsthesia, although an experienced surgeon will find ample time to do thoroughly all he requires, provided only the growths are to be removed. Young children, however, do not take gas well; they quickly become cyanosed, easily develop jactitation, and may cease breathing owing to spasm of the respiratory muscles after a few inspirations; as a consequence they recover equally quickly, and only a few seconds are available to do all that is required. Somnoform is an anæsthetic which is coming into favour for this operation. Its advantages are that there is no loss of colour, the soft parts remain relaxed, and there is no

jactitation. Its chief drawback is that the cough reflex is rapidly lost. Personally, I prefer chloroform for young children, but this anæsthetic must not be pushed to the point of abolishing the cough reflex, so that if any blood or growth should be sucked into the larynx it will be duly coughed up again.

With regard to the methods of operating, individual surgeons have their own particular way; and I will briefly describe one or two of the most important; but whatever method is chosen the operation has to be deliberately and accurately performed, and every detail of the operative procedure arranged beforehand, the surgeon keeping in mind the position of the growths, especially being careful to clear those on the upper curved portion, or fornix, as it is called, and in the fossæ of Rosenmüller. If any growth is left behind, it is generally at these points, and if the surgeon fails to clear the fornix with the first sweep of the curette he will have less chance of doing so with the second.

With regard to the choice of instruments, my experience is limited to a Gottstein's curette, of which there are various modifications. Löwenberg's forceps are still used by some specialists. I am convinced that no surgeon can clear the fossæ of Rosenmüller with the ordinary Gottstein's curette; these fossæ should be cleared with Bronner's curette or the finger nail. Personally, I use the latter, as one is less likely to injure the Eustachian eminence or cause undue cicatricial contraction.

The following is, in my opinion, a quick method for a skilful man, and is one in vogue at a large London throat hospital. The patient is placed in a chair with head-rest, the legs are strapped together and a Doyen's gag is introduced. The great advantage of this gag is that once in position it is not necessary to change it, the surgeon being able to remove both tonsils and growth without disturbing the gag; it thus saves valuable time. A light is then thrown by means of a laryngoscopic mirror into the naso-pharynx; if necessary tonsils are first removed, then the fossæ of Rosenmüller are cleared with the finger nail. A Delstanche's curette is used for removing the growth on the posterior wall, and any tags or portions left are cleared with an

ordinary Gottstein. The head is then pushed well forward, and the blood flows into a basin held by the nurse. Somnoform is the anæsthestic used.

The advantages of this method are that the operator can see accurately what he is doing, and both tonsils and growths can be removed in about thirty seconds. Of course the surgeon must be accustomed to use the laryngoscopic mirror. The disadvantages are that regardless of the hooked curette, some growth and blood may find its way into the larynx and cause spasm of the glottis, especially if somnoform is the anæsthetic used and the cough reflex abolished.

At another large throat hospital the following is the favourite method: Patients under 12 years of age are lightly anæsthetised with chloroform. They lie first in the recumbent position on their backs without any pillow. The growth on the posterior and upper curved portion of the pharynx is removed with one sweep of a Delstanche's curette. The child is then immediately turned over on its right side, with the head dependent and slightly over the edge of the table. The fossæ of Rosenmüller are cleared with the finger nail, and the tonsils finally removed if necessary. Patients over 12 years of age are given gas, the operation being done in the sitting position I have already described.

Another plan which seems a favourite with the older school is to operate in the recumbent position, with the head hanging well down over the edge of the table. Others, again, remove the growths with the child flat on its back, and then depress the head as I have previously described. The drawbacks of these two latter methods are that the surgeon is in a hurry to get his patient into a safe position, and may not have time to make a thorough clearance; moreover, the patients lose twice as much blood with the head hanging down.

The following is the method of operating in this hospital, and the one that I always practise. The patient is placed on his right side near the edge of the table, with the head resting on a low pillow, care being taken that the neck is not twisted. The face should project slightly over the edge of the operating table, and the legs somewhat drawn up.

The index finger of the left hand is passed behind the soft palate, and acts as a guide to the curette, which is then passed up into the naso-pharynx. The growths on the superior and posterior walls are removed by one or more sweeps of the curette from above downwards. The largest curette which will conveniently pass between the Eustachian prominences should be used. It is the growths on the basi-sphenoid or superior wall of the naso-pharynx that are most often left by unskilled operators, and this is far less likely to happen if an attempt is made to reach the septum with the curette before making the downward sweep. Bronner's curette may be used for clearing the fossæ of Rosenmüller, it being less likely to injure the Eustachian orifices than the larger curettes. Finally the finger is introduced, and any tags that are left are removed with the previously sterilised finger nail. If the posture of the patient is adhered to in the manner I have described, the blood cannot enter the larynx; and if the light is good the operator has a good view of the mouth, and with skill he can turn the growth, especially the cristate form, on the posterior wall of the pharynx out of the mouth. I always endeavour to do this, as I have known the relatives ask to see the growth after the operation.

If tonsils have to be removed at the same operation, I first remove the left with the patient lying on his back. The patient is then turned on his right side in the position above described, and the right tonsil removed, and finally the adenoids. The hæmorrhage is generally free, and the blood runs forward into the cheek and out of the mouth into the receiver held by the nurse. Small swabs of cotton-wool previously wrung out of (1 in 2,000) perchloride of mercury should be handy. These can be caught up with pressure forceps and the blood swabbed out of the mouth if necessary. The nose should be cleared of blood during and after the operation, by pressure with the fingers.

This method has one great advantage over all others, and that is the patient is in a safe position from the start, and no growth or blood can enter the larynx. The tongue, however, gets rather in the way of the surgeon, but this difficulty can be got over by using a tongue depressor if

necessary. It is said that there is more chance of blood clotting in the Eustachian tubes if the patient is operated on in this position, and that if the child subsequently blows its nose blood clot may be forced into the middle ear and cause otitis media; but so far my experience is that this complication is extremely rare, but that it does sometimes supervene regardless of the way in which the operation is performed. Another point worth consideration is that very little blood enters the stomach, and gastric irritation and subsequent vomiting is avoided.

After the operation for adenoids I generally keep the patient in bed for twenty-four hours. For the first few hours sucking ice and sipping iced milk lessens pain and discomfort. Light food should be given for a few days, and the patient should not be exposed to cold winds for a week or so after the operation, so as to avoid setting up otitis media. For the same reason I avoid using any spray or local application, and I also give instruction that the patient be prevented blowing the nose until several days have elapsed; firstly, because the effort may cause hæmorrhage within a few hours after the operation; and, secondly, because there is danger of driving purulent *débris* into the Eustachian tubes.

THE USE OF PARAFFIN INJECTIONS IN SURGERY.

By Stephen Paget, F.R.C.S.

Since September, 1902, I have used the injection of paraffin for more than sixty cases of sunken nose and for ten cases of prolapse of the vagina or of the rectum. I have not used it for any cases except these, and so far as I can judge, these are just the two kinds of cases which are best suited for it. Here or there, of course, a case might be found of some slight disfigurement of an exposed part of the body which might be removed by the injection of paraffin under the skin; but the more I know of this method, the more certain I am that we ought not to use it off-hand in a light-hearted way as a new "dodge." For example, I have

been asked more than once to try to conceal the advance of years by padding out sunken cheeks, or levelling up wrinkles, or filling up the hollows of thin necks. It would be hard to commit a worse blunder. Even if one could be sure of doing the thing right at the time, the unhappy patient would be left for the rest of her life with a lump or a plaque of stuff as hard as cartilage under her skin, which would steadily become more obviously false, till in her old age it would look and feel like a disease. Besides, one could not even be sure of doing it right at the time; the paraffin might stray a little, might press on a duct or a vein or a lymphatic vessel, or might cause redness of the skin, or some worse evil.

Certainly in other countries, but so far as I know, not in this country, it has been used, more than once, with more zeal than discretion. For example, it has been used to approximate the back wall of the pharynx to the soft palate after the operation for cleft palate; to fill up the side of the chest-wall after resection of ribs; and to make a sham breast after removal of the breast. It has been used also, with a better show of reason, to plug the inguinal ring in cases of hernia; but the paraffin, unhappily for the patient, drifted into the scrotum, and set there. And it has been used, which seems proper enough at first sight, to raise depressed scars, such as are common in the neck. I have had no experience of it for this last purpose; but I doubt whether it can do much good here, for in all my nose cases it was just the presence of scar tissue that was the one great and insuperable bar to good results. I tried again and again to free the scar tissue beforehand with a needle or a tenotomy knife; but this is more easily said than done in these nose cases. (If one tries to "free the scar," and then injects the paraffin at once, it escapes through the puncture made by the tenotomy knife. If one waits for a day or two, between trying to "free the scar" and injecting the paraffin, things are back where they were before.) Besides, in scar tissue there are more chances that the paraffin will stray a little, or will set up discolouration, or even breaking-down of the thinned and ill-nourished skin. Except in a very few cases, where soft skin, not much

damaged, is pinned down, at this or that point only, to the deeper structures, and can easily be freed and raised off them without wounding any vein, I do not see how the paraffin can ever be of much use in the treatment of depressed cicatrices. At the best, it would leave a sort of small bullet always there, just under the cicatrix; at the worst (apart from all possible chance of its getting into a vein) it would cause the skin to slough, or would stray along lymph channels outside its appointed place.

But here the question comes: Is it not possible to use a softer substance, of the nature of vaseline, or some mixture of oil with paraffin, which shall not remain for ever as a foreign body, but shall slowly be absorbed and replaced by living granulation tissue, and ultimately by fibrous tissue? It is reported that a substance or mixture of this kind has been used on the Continent for the levelling-up of the scars of small-pox; but I know of a case, treated in this sort of way, where the results all vanished in a few days: and I think that we should wait for more evidence on this point. Anyhow, so far as sunken noses and prolapses are concerned, I am sure that we ought to use a hard paraffin, which shall set like cartilage and last like cartilage. Whether it is replaced, as time goes on, by fibrous tissue as hard as itself, I do not know. There is some evidence that it is, or may be, thus transformed, very gradually, particle by particle. This evidence is a matter of physiology, not of surgery. Practically, to raise the skin of the nose, or to hold up the mucous membrane of a prolapse, what we want is a hard, immovable, immutable, foreign body. In the nose cases, the paraffin must take the place of a bridge; in the prolapse cases, it must take the place of a pessary or of a rectal plug. Microscopical changes are said to occur in it; the invasion of cells, the growth of capillaries, the formation of fibrous tissue. That does not concern the surgeon. What he wants is a hard foreign body which shall remain without any visible change till the patient's life comes to its natural end. He may admit that some sorts of paraffin, in some regions of the body, may slowly be changed, particle by particle, into living fibrous tissue, without any alteration that a casual observer can see—

no loss of bulk, no loss of shape, no loss of density—but that is no reason why he should use a soft paraffin or any mixture of oil and paraffin. Anyhow, so far as these nose cases and prolapse cases are concerned, the use of a soft substance would be disastrous, and especially in the nose cases; for in them the skin is suddenly lifted and strained over the paraffin, and we must, of course, have a paraffin that will set rapidly, and set very hard, to stand this immediate and very heavy pressure.

Let me speak first of these nose cases, which came to me, most of them, because my name, through no fault of mine, got into the *Daily Mail;* and I wish to raise two questions. First, Is the result permanent? Next, What cases are favourable, and what cases are unfavourable?

First, I have no doubt that the result is permanent. I saw a few days ago a case that was done fifteen months ago, and it remains unchanged; and I have lately had letters from patients done six or eight or more months ago, and still unchanged. I do not doubt that these noses are permanent. But we must, I think, admit that slight changes do occur during the first two or three weeks after the injection. These changes are very slight; but they do just take the edge off the result. The nose never looks quite so well as it did at the time of the injection. The paraffin shrinks a very little, or it broadens out a very little; or a drop or two slowly make their way to one side or both sides, and leave a little fulness of one or both naso-labial folds; nothing much, but just enough to detract a little from the excellence of the result, just enough to make one wish that one had used a few drops less of the paraffin.

That, I think, is the whole secret of this method: not to try to do too much. Several times, especially in my earlier cases, I have tried to do too much. The great thing is to be content to make the patient content. We ought not to try to build noses with bridges to them; we ought to try just to conceal the absence of a bridge, just to enable the patient to go about without being stared at. Think what it is that we have to do. We have to raise the skin, and to keep it raised. Every extra drop of paraffin means increased tension. It is a matter of guess-work only, to

say when the tension becomes too great. The minute the tension becomes too great, the paraffin either flattens out a little or strays a little. The best cases are those where you succeed in making a face unnoticeable that was notably ugly; and it is not wise to attempt more than that.

Now we come to the question, What cases are favourable and what are unfavourable? It is all a question of tension, and of the presence or absence of scars. Old people are bad cases; the skin may seem fairly free to the touch, but it is shrunken and non-elastic; it has been sunken perhaps for half a century, it does not rise well. Tertiary syphilitic cases, with scars, are the worst cases of all; the skin, and what is left of the bones and cartilages, are all stuck together and shrunk together, and the tip of the nose is pinned down tight; practically you can do nothing, or next to nothing, for these cases. But, on the other hand, cases of inherited syphilis are mostly very favourable cases; and so are those cases where the growth of the bones of the nose was arrested in early life, either by injury or by some fault in development of which we know nothing. The whole thing depends on the state of the skin. If it is shrunken, or adherent, or tense, or scarred, so that you cannot raise it between your thumb and finger, then you cannot raise it with paraffin. If it is soft and loose and abundant and healthy, then you can raise it with paraffin, and keep it raised. Even though the patient has ozæna, or has a perforation of the septum, it makes no difference; you can be sure of getting a good result if only you have got the skin to do it with.

Now let me say something about the prolapse cases. I have done ten of them; nine of them were men or women, and one was a bull-dog. So far as I know of these ten cases, two have relapsed. One was a very bad prolapse of the vagina; the patient had severe bronchitis after the operation, and I dared not subject her to any further treatment under an anæsthetic. The other was a bad case of prolapse of the bowel. In spite of these two failures, and in spite of some uncertainty, which I think we must all feel, whether the conditions of a very old and very extensive prolapse can ever admit any sure hope of an absolute cure, I think

very well of this method, only, of course, it does not always get a fair chance; it is used as a last resource and a forlorn hope; and in most of my cases of prolapse of the bowel many operations had already been done. Perhaps it would be true to say that cases of prolapse of the vagina should not be subjected to the treatment, if the prolapse can be kept up quite satisfactorily with a pessary; and that the surgeon ought to be content, in very bad cases, if he can succeed in keeping up, with paraffin *plus* a pessary, a prolapse that a pessary alone could not keep up. And of course the paraffin should not be used for women who are not yet past the age of childbearing. In cases of prolapse of the bowel, I do believe thoroughly in the value of the method; and I need not say that these cases are so distressing and so miserable that it is better even to run the risk of failure than to leave them alone as hopeless.

But of course each case must be taken on its own merits, and I think that my failures and disappointments were mostly due to taking every case that came to me. With nose cases we are bound to see clearly that some cases are favourable and some are not. If the skin is free and healthy and fairly abundant, so that we can raise it easily between the finger and thumb, then we can do a great deal of good; and the fear is that we may do harm by trying to do too much good. If the skin is tight and rigid and set, so that we cannot raise it between the finger and thumb, then we cannot raise it with paraffin; or, if we could, yet the paraffin would spread a little or stray a little; we might gain some improvement, but it would not be much. If the skin is scarred and thinned and pinned down to what is left of the deeper structures, then we might almost as well refuse to have anything to do with the case; it is impossible to do much for it, and the patient will only be disappointed. Everything depends on the state of the skin; nothing else matters, neither ozæna nor perforation of the septum. Given a favourable state of the skin, and a patient who will be content with a nose that will save him from being looked at twice in a crowd, and we can be fairly sure of obtaining that modest success.

As in nose cases everything depends on the state of the

skin, so in cases of prolapse of the bowel everything depends on the state of the sphincters. If the sphincters are healthy, or fairly healthy, or if, though they be relaxed and feeble, they can be brought into good working order by Mayo Robson's simple plastic operation, then I believe we can cure the case; but we may have to add some more paraffin at a later period. If the sphincters have been practically destroyed by previous operations, so that the anal opening is nothing more than a ring of callous scar tissue, which does more to help than to hinder the leakage from the bowel, then the case is unfavourable. I do not say that this rule is absolute; indeed, in the first case of prolapse that ever I did, more than a year ago, I got an excellent result, though the whole lower end of the bowel had been removed for malignant disease. Still, the condition of the sphincters is of very great importance; and we must not forget that Mayo Robson has succeeded in holding up bad prolapses by a very simple little operation. Indeed, it might be well to keep the paraffin for cases in which Mayo Robson's operation had not been successful, or to use the two methods in combination.

In cases of prolapse of the vagina, I can truly say that I have got good results; but of course these are of all cases the most likely to relapse as time goes on. Of course also they are not all alike. It is easy enough to treat a rectocele, but it is not at all easy to treat a cystocele. There are favourable cases and unfavourable cases, and I have not had enough experience to dogmatise about them. But I think it would be true to say that: (1) If the patient can keep up the prolapse with a pessary, then the paraffin might be able to serve instead of a pessary; but this would depend, I think, on the character of the prolapse, and, to some extent, on the patient's daily life. A thing might succeed if the patient lived easily which would fail if she worked twelve hours a day at a laundry. (2) If the prolapse is so bad that it cannot be kept up by a pessary, then the addition of paraffin would probably enable the patient, if not to dispense with a pessary, at least to have the prolapse held up by one.

I have had no experience of other methods of dealing with prolapse of the vagina, and I do not know to what extent

they are successful. The only purpose of this note is to call attention to the principles that may guide us in the use of paraffin for sunken noses and for prolapses.

THE ETIOLOGY, PATHOLOGY, AND DIAGNOSIS OF ADRENAL HÆMORRHAGE.[1]

By Leonard S. Dudgeon, M.R.C.P.Lond.

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Case 1. *Thrombosis of the Superior Longitudinal Sinus and the Cerebral and Cerebellar veins; Pin-point Hæmorrhages in the Cerebellum; Extensive Purpura; Hæmorrhages into the Left Adrenal Gland and Left Kidney; Thymic Abscess; Staphylococcus aureus and albus cultivated from the Heart Blood.*—Annie M., aged 2 years and 8 months, admitted December 12, 1902, under the care of Dr. Eustace Smith, to the East London Hospital for Children.

The child was obviously rickety, and is said to have been delicate from birth. There was no evidence of congenital syphilis. She had been vaccinated successfully.

The present illness commenced on December 3, 1902, with pain in the head and general weakness. On December 6 "a swelling" was noticed at the angle of the jaw, on the left side. The child had frequent screaming fits, but no true convulsions.

On admission to the hospital the infant appeared to be very ill. She lay in an apathetic state, but occasionally put her hands to her head and screamed, as if she suffered great pain. Temperature was 101° F. The veins of the scalp were greatly distended, especially on the right side and there was also a very prominent vein about the middle

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[1] A short abstract reprinted from the *American Journal of Medical Sciences* for January, 1904. The whole of the pathological matter has been removed.

of the forehead. A large abscess was found on the left side of the neck, and a smaller abscess was situated in the lower part of the left pectoral region. The knee-jerks were brisk. Kernig's sign was absent. There was double otorrhœa. There was nothing else abnormal noted in any other part of the body.

December 13.—Infant was worse. The face was a pale, leaden colour. There was slight cyanosis. Temperature was 103° F., and the child was semi-comatose. Respiration was rapid. Pulse was rapid and running. A small patch of purpura appeared on the outer side of the left knee, and gradually spread over the rest of the limb. Toward the end of the day the right foot became similarly affected, and the purpura gradually spread upward. There was swelling of the limbs, but no pitting on pressure. There were no convulsions. Death occurred on December 14.

I performed the *post-mortem* examination sixteen hours after death. Nutrition was fairly good. There was a large abscess on the left side of the neck beneath the lower jaw, which contained about half an ounce of thick yellow pus. There was no communication between this abscess and the pharynx. Another small abscess was found in the seventh intercostal space which contained about a drachm of pus. This had no connection with the ribs, thorax, or abdomen. It was situated between the skin and the chest muscles. There was deep red staining of both legs and considerable swelling of the right thigh; but when one cut into these tissues they appeared to be normal. There were no abnormal changes found in the femoral artery or vein. All the thoracic viscera were normal, except the thymus gland, which was enlarged, owing to an abscess in the right lobe, which contained thick yellow pus.[1] The left kidney contained about a dozen "black spots," which were situated in the cortex, and were found to be hæmorrhagic. Capsule stripped readily. No other naked-eye changes observed. Right kidney appeared to be normal. Blood-vessels were normal.

Left Adrenal Gland.—This was simply a "coffee-coloured" hæmorrhagic mass, which was quite obvious through the

[1] Unfortunately, no bacteriological examination was made.

capsule of the gland. There appeared, however, to be a small covering of apparently normal cortex, which formed a wall for the blood clot lying in the medulla. I regret that I failed to notice the condition of the suprarenal vein. There were no hæmorrhages into the surrounding tissues.

Right adrenal gland was apparently normal. Mesenteric glands were normal.

Brain.—There was complete thrombosis of the superior longitudinal sinus, the superior and middle cerebral veins, and a slight extension of the clot into the right lateral sinus. The cerebellar veins were also completely thrombosed. The clot was tough, pale red, and firmly adherent to the vessel walls. Pin-point hæmorrhages were visible in the grey matter of the cerebellum, but none elsewhere. There was no evidence of meningitis, but some œdema of the pia mater. There was no excess of fluid in the ventricles. There was softening of the brain in the region of the thrombosed vessels. Cranial bones were normal. Mastoids were normal.

Bacteriology.—A pure culture of the *Staphylococcus aureus* was obtained from both subcutaneous abscesses; and both the *Staphylococcus aureus* and *albus* from the blood of the right ventricle.

Microscopic Examination.—There were numerous scattered hæmorrhages all through the medulla of the left adrenal gland, and in some places the hæmorrhages occupied quite a large area of the gland tissue. The capillaries were over-distended, and in many places the walls of the blood-vessels had ruptured. Large, prominent, and distended capillaries were also seen between the columns of cortical cells, but otherwise the cortex was normal. Sections of the gland were stained by Gram's and Pappenheim's methods for micro-organisms, but with negative results.

CASE 2. *Extensive Burn; Large Hæmorrhage into the Right Adrenal Gland, associated with Symptoms which rather pointed toward an Acute Lesion in the Abdomen.*—Rose S., aged 6 years, admitted January 22, 1903, under the care of Mr. Keetley, into the West London Hospital, Hammersmith. The child had burns of the first and second degree[1] face, back, and both forearms. Temperature was

[1] A short for January, Boric acid fomentations were applied.

On January 24, the child was very restless and vomited during the night. Temperature was 99·8° F. January 26 she was restless and suffered from frequent vomiting. She is said to have complained of pain in the abdomen, but it moved well on respiration, and there was no localised tenderness. Pulse was 110. Temperature was 98° F.

January 27.—Abdomen moved well on respiration. Vomiting had stopped. Extremities were cold. Pulse was 140. Temperature was 98° F. Urine contained no albumin. Death occurred in the evening of January 27.

Post-mortem Examination was performed about twenty-four hours after death. There was very little found at the autopsy. All the thoracic organs were normal. The mesenteric glands were calcified. The right adrenal gland was very much swollen, of a deep-red colour, and there was a very large hæmorrhage into the medulla of the gland which so distended the cortex that it formed a sort of capsule. Left adrenal gland was normal. All the other abdominal viscera were normal. Brain was normal.

Microscopic Examination.—Through the kindness of Dr. A. E. Russell, I was able to examine the suprarenal gland and to prepare specimens for microscopy.

The whole of the medulla of the gland was composed of blood clot.

CASE 3. *Gangrenous Varicella; Tubercular Mesenteric Glands; Tubercular Ulceration of the Intestines; Double Adrenal Hæmorrhage; Pure Culture of the Pneumococcus isolated from the Heart Blood and from the Adrenal Glands.*—Beatrice G., aged 1 year and 10 months, admitted March 5, 1903, under the care of Dr. Coutts, to the East London Hospital for Children, with the following history:—

Child had been restless, and had loss of appetite for about a fortnight before admission to the hospital. Typical varicella rash appeared on Monday, March 2. Papules rapidly became vesicles, and as some of these spots subsided others appeared. On Wednesday, March 4, some of the spots rapidly spread, and tended to form "large spreading sores." On March 5 the child vomited twice, and was so ill that the mother brought her to the hospital.

On Admission.—The trunk, head and limbs were covered

with bluish-black "ulcers" which varied greatly in size. The large ulcers were confined to the back. The floor of the ulcers was dry and glazed, and the edges were in some places serpiginous. Some of the small varicella spots were in the same condition. Several ulcers were present on the scalp. There were no purpuric spots. There were no physical signs in the lungs or other viscera. Pulse was extremely rapid, 200 per minute, and the respirations were also very rapid. Throat was normal. Child was almost comatose, and died within twenty-four hours of admission to the hospital.

Post-mortem Examination was performed on March 7. Body was well nourished. Skin covered with ulcers, as already described. There was well-marked evidence of rickets. Throat, larynx, trachea and pharynx were normal. Pleuræ were covered with numerous hæmorrhages, but there was no fluid in either sac.

Lungs.—There were numerous dark red hæmorrhagic areas about the size of a pin's head, or a little larger, in the left lower lobe, otherwise there was no consolidation of either lung. Tracheal and bronchial glands were normal. Heart was normal. Epicardial and pericardial hæmorrhages were found. Right lung was normal. Mesenteric glands were pale and about normal in size, and most of them contained small caseous masses.

Intestines.—Lower end of the ileum and colon contained large tubercular ulcers, with localised tubercles on the peritoneal surface of the gut. There were no adhesions and no free fluid. Both adrenal glands were swollen and of deep purple colour, but the blood-vessels were normal. There were no lesions elsewhere in the abdomen. Brain was normal. Bones were normal.

Bacteriology.—A pure culture of the pneumococcus was isolated both from the heart blood and from the adrenal glands, but no confirmatory inoculation experiments were made.

Microscopic Examination of the Adrenal Glands.—The whole of the parenchymatous tissue of the glands was almost entirely replaced by blood clot. No organisms were detected in any of the microscopic specimens.

CASE 4. *Broncho-pneumonia; Sudden Death; Double*

Adrenal Hæmorrhage.—Charles M., aged 14 weeks, was seen by Dr. Jordan Harvey (to whom I am indebted for the notes of the case), on Thursday, January 23, 1903, just before death.

The child had been delicate from birth, otherwise there were no special points of interest in the case until the morning of the above date, when the mother noticed that the child's breathing was laboured. The dyspnœa rapidly increased until death, which occurred at 11 p.m. on the same day. There had been no vomiting, diarrhœa, abdominal pain, convulsions, or any purpuric spots.

Post-mortem Examination.—The body was pale and flabby, and weighed 12½ lbs. The anterior fontanelle was greatly depressed. There was a patch of eczema over the left ear.

Chest.—The pleural sacs were normal. The upper lobe of the right lung was solid from confluent patches of broncho-pneumonia, and the lower lobe of the left lung was in a similar condition. The other thoracic organs were healthy.

Abdomen: Adrenal Glands.—Both glands were deep purple in colour and distinctly swollen. The cortex and medulla appeared to be equally affected. The blood-vessels were not examined. All the other abdominal organs were healthy. Brain was normal.

No bacteriological investigation was made.

Microscopic Examination.—The whole of the medulla of the glands was composed of blood clot. No micro-organisms were found in any of the specially stained sections.

The Clinical Aspects of Hæmorrhage into the Adrenal Glands.

Adrenal hæmorrhage is generally a complication of various maladies, but occasionally there are symptoms which appear to be somewhat characteristic and lead to the diagnosis of a separate and possibly distinct disease. It has generally been found that other clinical phenomena have been sufficient to attract the entire attention of the observers, and the condition of the suprarenal glands has never been referred to.

As already stated, the clinical aspects are various, and have been considered from many standpoints by such writers on the subject as Arnaud, Still, Graham Little, and others.

The first-named has contributed the most valuable monograph on the subject, both from a clinical and a pathological standpoint. He gives the following classification: (1) The asthenic type; (2) peritoneal; (3) nervous. This classification is, to my mind, incomplete. The most interesting group is omitted. I should therefore add to Arnaud's classification:—

(1) Cases with a very acute onset and many symptoms which lead one to suspect an acute specific fever.

(2) Cases with severe skin lesions, purpura, &c., but not suggesting an acute specific fever.

(3) Those cases in which the adrenal hæmorrhage occurs as a complication of some pre-existing disease, and is only recognised at the autopsy.

(4) Hæmorrhage in the new-born.

Possibly this classification is inadequate, but it will be found to meet the large majority of cases.

The most interesting group (No. 1 in my classification) has been fully dealt with by former writers on the subject. The chief points of interest in these cases are briefly as follows: A very acute onset, generally in infants who previously are said to have been healthy. There are one or more convulsions, vomiting, diarrhœa, and within a few hours from the onset of the illness a petechial or purpuric eruption appears, which may spread diffusely all over the child. Pyrexia varies from 101° to 105° F. Collapse rapidly supervenes, and death takes place within twelve to forty-eight hours. The diagnosis of a specific fever has been made in many of these cases, and more especially variola, chiefly from the fact that the infants have generally been *unvaccinated*. Dr. Voelcker describes a case in the *Pathological Reports of Middlesex Hospital for* 1894, of a well-nourished child, aged 2 years, who was admitted in November, 1894, into the Middlesex Hospital with a history of a severe illness of twenty-four hours' duration. The child was *unvaccinated*. There were vomiting, marked prostration; temperature 105° F., and an extensive petechial eruption which extended over the whole body. The case terminated fatally within forty-eight hours from the onset. It was recorded as doubtful variola. *Post-mortem* evidence showed hæmor-

rhage into both suprarenal glands. Dr. Andrews, in the *Transactions of the Pathological Society of London*, reports a similar case to the above, in a well-nourished female child, aged 1 year and 3 months, who was *unvaccinated*, and where death also occurred within forty-eight hours. Both suprarenals were hæmorrhagic. A. E. Garrod and J. H. Drysdale, in the same Transactions, refer to a case of an *unvaccinated* female child, aged 4 months, who was brought to the hospital dead, covered with a blotchy purpuric eruption. Both adrenals were deep purple in colour, and were found to be hæmorrhagic. Dr. Batten, also in the same Transactions, describes the case of a male child, aged 2½ years, which had been attending the out-patient department at Great Ormond Street Hospital for some time, suffering from lichen urticatus. The child was taken suddenly ill with vomiting and diarrhœa. Temperature was 102° F. Knee-jerks were exaggerated. Temperature rose to 106° F. before death, which occurred within forty-eight hours from the onset of the attack. The right adrenal was found to be hæmorrhagic, but the left was normal.

Clive Riviere[1] recorded four cases in the *Transactions of the Pathological Society of London*. The children were all under the age of 12 months. *Three were unvaccinated.* One had been vaccinated and showed two good scars. There were vomiting, diarrhœa and pyrexia, and death supervened within forty-eight hours; in one case within twelve hours. In every case there was hæmorrhage into the suprarenal gland.

Graham Little, in the *British Journal of Dermatology*, has referred to the case of a child, aged 4 months, which was admitted to St. Bartholomew's Hospital under the care of Sir Dyce Duckworth, suffering from a purpuric eruption all over the trunk and limbs. There was some pyrexia. The child was rickety and was *unvaccinated.* Death took place within twenty-four hours from the onset of the illness. Both suprarenal glands were found to be deep purple in colour.

Another case of great interest is also quoted by Graham

[1] These cases have also been recorded by Graham Little in the *British Journal of Dermatology*, and by Blaker and Bailey in the *British Medical Journal.*

Little. A male child, aged 13 months, was admitted to the Royal Free Hospital, under the care of Dr. Sainsbury. There was a diffuse purpuric eruption on the arms, legs, and face; also conjunctivitis, vomiting, convulsions, cyanosis, and pyrexia which reached 108° F. just before death, which took place within twenty-four hours from the commencement of the illness. There was a large hæmorrhage in the right suprarenal gland. The left contained numerous hæmorrhages.

What is the nature of these cases?

First and foremost, are they examples of fulminating small-pox? This diagnosis has been made in some cases, in others strongly suspected.

Fox, in his article on hæmorrhagic fulminating small-pox, says: "It runs its course precipitately and at times most unexpectedly, sometimes killing the patient in a few hours, in other cases not completing its career until the fourth or fifth day." There seems to be an entire absence from the literature of small-pox of cases similar to those recorded above, and at such an extremely early age. It is stated that infants are not so susceptible to small-pox as children and adults, but this is doubtful. Cases of fulminating small-pox often have extensive purpura, but present none of the characteristic features of variola, because death occurs at the commencement of the disease. Practically the only strong evidence in favour of small-pox in the cases under discussion rests on the fact that so frequently the children were unvaccinated (nine cases out of twelve recorded). It would be interesting to know, however, the exact percentage of *infants* who are brought to the various hospitals *unvaccinated.* There is nothing else in the clinical history of the cases which is not perfectly in accordance with an acute bacterial infection, fulminating scarlet fever, or measles, &c.

A most interesting case is recorded by Fox, of an adult male, who died within twenty-four hours from the commencement of an illness which was considered to be hæmorrhagic scarlet fever. This diagnosis was afterward found to be incorrect, as a friend who had occupied the same room developed small-pox within a fortnight. This is one of the few recorded cases in adults which resembles in many

ways the cases described above, but this proved to be infectious, while every case I have collected failed to convey infection. This is most remarkable when we consider the over-populated districts in which most of these children lived. MacCombie, in his article on small-pox in Allbutt's "System of Medicine," says: "I have not seen this fulminating form, which is characterised by its extreme rarity, rapid onset and termination, and by high temperature, delirium, coma, and collapse, rapidly terminating in death after a few hours' illness. No skin hæmorrhages are seen, only visceral." In the recorded cases, however, skin hæmorrhages have usually occurred. Lastly, physicians of such experience as Osler and Immermann do not refer to cases similar to those recorded in this paper in their various contributions to the literature of small-pox. It is extremely probable that we are dealing with an acute toxæmia of unknown origin, quite apart from any acute specific fever.

Goodhart and Still report cases in infants of a week old, who have died quite suddenly with severe abdominal pain and collapse. At the autopsies hæmorrhage has been found in one or both suprarenals, which have ruptured, allowing extravasation of blood into the surrounding tissues and peritoneal cavity.

Perhaps the most interesting case has been described by Arnaud. A man, aged 36 years, was admitted to hospital in a state of coma. Cerebral hæmorrhage was diagnosed, and all "other causes" were excluded, so far as it was possible to do so.

Post-mortem Examination.—Both suprarenals were practically destroyed by an extensive hæmorrhage into the gland tissue. All other organs were found to be normal. This case is the best example in the literature of adrenal hæmorrhage presenting such symptoms that even in competent hands a diagnosis was made of a lesion of the central nervous system.

Etiology.—(1) In most cases the term "idiopathic" might justly be applied.

(2) A gastro-intestinal infection.

(3) Very common occurrence in the new-born.

(4) In both acute and chronic lung and cardiac disease,

and in convulsions; in fact, any disease which is known to produce stagnation of the blood in the veins or a marked increase of blood pressure may be associated with adrenal hæmorrhage.

(5) Septicæmia, pyæmia, acute miliary tuberculosis, and the toxæmia from severe burns, &c.

(6) Congenital syphilis. It would have been a matter of some surprise if congenital syphilis had been omitted from the list of causes, but there is very little to substantiate the opinion held by some observers as to the importance of this factor in adrenal hæmorrhage.

(7) Blows in the back, fracture of the spinal column, and severe abdominal lesions, such as ruptured liver, &c.

(8) The so-called blood diseases—*e.g.*, scurvy, &c.

(9) Lastly, adrenal hæmorrhage is sometimes found at the autopsies on chronic diseases of the nervous system —*e.g.*, general paralysis of the insane.

ABSENCE OF CASTS IN THE URINE OF NEPHRITICS. — A. Treutheim, after observing a case of nephritis with albuminuric retinitis, but without casts, performed some experiments to determine the cause of this phenomenon. He formulates his conclusions as follows: (1) There are cases of typical nephritis with albuminuria and albuminuric retinitis in which no casts can be demonstrated in the urinary sediment. (2) This condition, which must be considered as a cyclindrolysis, is not due to the pepsin excreted by the kidneys. (3) The leucocytes of an existing cystitis, which have ascended to the pelvis and the uriniferous tubules, are not capable of dissolving casts. (4) Pus cells from kidney abscesses cannot do it. (5) It is probably due to bacterial action (*Bacterium coli*). This may take place in the bladder, or with greater probability through ascension of the colon bacilli already in the pelvis or renal ducts. (6) The ferments of the *Bacterium coli* do not have the power alone of dissolving casts.—*Munich med. Woch.; American Medicine*, February, 1904.

Report of Proceedings.

CLINICAL MEETING.—Friday, January 8, 1904.

Dr. SEYMOUR TAYLOR, President, in the Chair.

THE following gentlemen were unanimously elected members of the Society: Ernest E. Argles, M.R.C.S., L.R.C.P., 74, Oxford Terrace, Paddington, W.; Alex. John James Johnston, Fleet Surgeon R.N., M.R.C.S., L.R.C.P.; Fredk. J. Lawson, M.B.Lond., M.R.C.S., L.R.C.P., Sherwood, 4, Palewell Park, East Sheen, S.W.; Septimus L. J. Steggall, M.R.C.S., L.R.C P., 92, Bedford Court Mansions, W., and Port Limon, Costa Rica.

A Case of Lympho-sarcoma of the Naso-pharynx.

Dr. LEONARD DOBSON: The patient before you is a man aged 44, who a year ago, following on a severe cold, had bad pains in the head, running up the left occipital region, followed by enlargement of the glands on the left side, those on the right becoming enlarged some three months later. Six months ago he had a bloody discharge from the pharynx, accompanied by small fleshy lumps. This discharge continued until treatment was commenced. The patient has lost flesh rapidly, he thinks more than one stone. He came to the out-patients' throat department in November and was referred to Mr. Chisholm Williams for X-ray treatment. On examination the glands were considerably more than twice the size than they are at present, and he had a large soft growth occupying the seat of Luschka's tonsil, which bled profusely on examination, and broke down on the slightest pressure. He was suffering severely from occipital pains. There is no history of syphilis, and no other glands in the body are enlarged. Under two exposures to the X-rays weekly he has improved considerably. The glands have shrunk to half their former size, the pain is less, and he has gained strength, but no weight.

I have brought this patient forward with the view of confirming the diagnosis of lympho-sarcoma. It was at first thought that it might be a case of lympho-adenoma, with a lymphoid growth in the pharynx; but considering that he has no other enlarged glands in the body, that he has lost weight so considerably, and the nature of the growth

in the naso-pharynx, I do not think there can be any doubt that the growth is malignant. No blood examination has been made, as unfortunately the plates were mislaid. The result of the treatment under X-rays so far is most satisfactory.

Mr. PERCY PATON: It is unfortunate that in this very interesting case that it has not been possible to so far obtain a microscopical specimen of the growth, and so clear up its exact nature. Though it seems clear that the improvement in the local and general condition has been due to the use of X-rays, it must not be forgotten that should the disease prove to be lympho-sarcoma very material temporary improvement not infrequently takes place in the course of this disease, sometimes without any very obvious cause. I have recently had a patient under my care in whom this was very markedly the case, the masses of glands —which were very large in both posterior triangles of the neck and on the right side—were causing much swelling of the arm, shrinking to almost half their size, only to increase again a little later, and ultimately to determine a fatal issue.

Dr. LEONARD DOBSON: I am, of course, aware that cases of this nature frequently improve for a short time, for no obvious reason; but in this case, anyone who saw the patient before treatment would admit that the improvement has not only been very great, but that it has been continuous. Before his treatment with X-rays the glands were more than twice the size they are at present, and were soft and extremely painful; they are now shrunken and hard, and he has but little pain. He was formerly very weak and had marked cachexia; he is now greatly improved in health and strength, and talks of returning to work. This improvement set in and has gone on *pari passu* with his X-ray treatment, and I have no doubt is the result of it.

A Case of Multiple Sarcoma of the Skin.

Dr. SEYMOUR TAYLOR: J. B., aged 32, confectioner, was sent to me for diagnosis. He had complained of cough and loss of flesh during the last three months, but the cough was not attended by expectoration, hæmoptysis, or by night perspirations. On examination he presented several tumours scattered over the dorsal surface of the trunk, which at first sight suggested sebaceous tumours; but which on further examination proved to be new growths. On the ventral aspect more tumours of a doubtless similar nature were observed; but in this respect they were apparently

more advanced, the skin over them being somewhat stretched (though not adherent) and reddened.

The patient says that he first noticed one tumour (which is the largest) in the skin over the right iliac region, and that this tumour has rapidly grown till it is now the size of a tangerine orange. The other growths are of all sizes, down to that of a split pea; but for the most part they are about the size of a small walnut. They are not particularly painful, although in some places the growths have come to the surface, and present a granular surface, of dull, old character in some, and a shining, polished appearance in others; but all free from any exudation or fluid. They numbered quite forty, but were confined entirely to the trunk, the limbs and head and neck being free. The glands of the groins and axillæ were enlarged, indurated and matted. The patient is extremely anæmic, and has a harsh brassy cough, with some inspiratory stridor. Laryngoscopic examination shows nothing abnormal; but on physical examination of the chest the breath sounds and vocal fremitus are found to be increased on the right side. The diagnosis lies between mycosis fungoides and multiple sarcoma, but in view of the fact that there has been no antecedent affection of the skin, such as eczema or dermatitis, the diagnosis leans to that of diffuse multiple sarcoma.

Mr. PERCY PATON: I have had the opportunity of seeing three cases which I believe to be of a similar nature to the one shown us by our President. They were all examined microscopically, and were all sarcomata, and in each case the primary growth was in the testis—or at any rate, this appeared to be the case, there being a large growth in this gland, though it is possible that this deposit may have been secondary. One of the most noticeable features of the cases was the extraordinary rapidity with which the growths increased in size; in one of them the lapse of two or three days was quite enough to allow of a measurable increase. Generalisation in the skin I believe to be much more rare in carcinoma than even in sarcoma, though a case of this sort, secondary to a scirrhus of the breast, was shown by Dr. Rolleston a year or two back at the Clinical Society.

Dr. WHITFIELD: I think the case is not one of mycosis fungoides. Two types of this disease are known, namely, that in which there first appeared a more or less innocent looking skin eruption of long duration on which the tumours developed, and the other much rarer form in which the tumours were the first symptom—the mycosis fungoides *d'emblée* of the French authors. In either case the tumours

when formed were of a very soft and peculiar consistency, quite unlike those present in the patient exhibited. Also they invaded the superficial part of the corium either at once or very early, whereas in this case the tumours were in their early stages definitely subcutaneous. I think it most probable that the case was one of primary sarcomatosis cutis, a very rare disorder; but I think all possible situations for a primary growth should be investigated, as I remember a case in which somewhat similar growths were proved after death to be metastases, from an insignificant prostate tumour of carcinomatous type. As regards the treatment, I think the injection of arsenic and the exposure to X-rays hold out the only hope of success, but it would be necessary to excise one of the smaller tumours for diagnosis first.

Dr. SEYMOUR TAYLOR: The diffuse character of the neoplasm suggests that it is sarcomatous, and this view is strengthened by the respiratory stridor and brassy cough, which suggests extension of the growths into the mediastinal tissues. A definite diagnosis, however, can only be arrived at by microscopical examination of one of the tumours, which shall be done.

NOTE.—Subsequent microscopic examination of one of the tumours which had been excised showed that the growths were small-celled sarcomata.

A Case of Anorexia Nervosa.

Dr. SEYMOUR TAYLOR: A. B., female, aged 19, of no occupation, was admitted to my ward with a diagnosis of advanced phthisis. No signs of phthisis could be discovered; but as the patient was so extremely emaciated and feeble, an extensive exploration of the chest was deferred until her strength should have been somewhat recruited. Subsequent examination failed to discover any signs of disease of the lungs. A few dry bronchial rhonchi were heard, but these were all the abnormal signs which could be detected. The patient had, however, steadily refused food since her admission, and had to be fed by a nasal tube. Her weight was under 4 stone. The case was now recognised as one of anorexia nervosa, as described and figured by Gull and others, and the treatment consisted of careful feeding, by giving her small, easily-digestible meals at short intervals. In these meals the fatty elements of food preponderated over the albumens and starches. Cod-liver oil was also given in teaspoonful doses three times a day. The patient still refused

food by the mouth, and had to be fed by artificial means. She gradually improved, however, and after ten days' sojourn in hospital she began to take food naturally; she gained flesh, her appetite improved, oysters were added to her dietary, more as an inducement to take the accompanying bread and butter than from their food value, and she ultimately left the hospital after a stay of eight weeks, in the condition she now presents. She is greatly improved in appearance, and has gained over 1 stone in weight. I have given her friends strict orders to continue the diet and regimen which were enforced during her stay in hospital.

Dr. RICE OXLEY: I have treated five of six of these interesting cases, and although it is difficult, at a moment's notice, to recall facts, I remember the curious feature that two of my cases were sisters, who, however, only suffered from the ordinary symptoms of this ailment. In one case, that of a boy of about 14, the stomach seemed quite unable to pass on its contents, but gradually filled up and then emptied itself by the mouth. The emaciation in this case was very marked, and I will show his photo at the next meeting of the Council. The fourth case was that of a gentleman, aged about 40. In this case gastric pain was the main characteristic, but there was vomiting also, and I found it advisable to wash the stomach out daily. I do not quite agree with the idea that these cases are hysterical, as the word is commonly understood; none of my cases would clearly come under this definition. That they are of a "nervous" type is manifest. They run a long course, generally, and require great care and patience in their management. Where gastric symptoms predominate, rectal feeding is necessary. By means of a very careful dietary, massage, and electricity, a cure can usually be brought about. You will see that the boy I have mentioned became quite stout and well-looking, and the other cases did very well. Time and perseverance are the great essentials of success.

Dr. LEONARD DOBSON: I would like to suggest the trial of high frequency electrical currents in this case, more especially as massage is not available. I have lately had a female patient under my care suffering in a somewhat similar manner, but with this difference, that she digested nothing, as proved by repeated examination of the contents of the stomach; in fact, she was a marked case of functional atony of the stomach. She had had every form of medical treatment, without benefit; but very rapidly improved under daily exposures to high frequency currents. She has gained considerably in weight, and can now digest anything, and

I have little doubt that this patient will improve under similar treatment.

Dr. SEYMOUR TAYLOR: I do not say that all these cases are hysterical; but I am convinced that there is a strong neurotic element and taint in all of them. Gull's nomenclature also indicates that he was of this opinion. They are essentially cases in which the Weir Mitchell treatment affords the greatest success. There is in many instances an antecedent history of pain on taking food, vomiting, and occasionally hæmatemesis, suggesting that gastric ulcer may have existed beforehand, and so predispose the patient to refusal to take food from fear of the consequences.

Case of Tuberculosis of the Spine.

Mr. A. V. HAMILTON (for Mr. C. B. Keetley): Mr. Keetley has asked me to show this case in his absence. The child came to Mr. Keetley's out-patient orthopædic department only yesterday, and the full details of the case are therefore not to hand. The child presents typical tuberculosis of the spine, the chief point of interest being that there are two foci of disease, one in the cervico-dorsal, and the other in the dorso-lumbar region of the spinal column. There are no signs of pressure on the spinal cord, the sphincters are unaffected, and the lower limbs are not affected either in motion or sensation.

A Case of Trendelenburg's Operation.

Mr. G. A. GARRY SIMPSON: The patient I showed had been suffering for eight years from an extensive varix of her right internal saphenous vein. When she first came under my notice the vein was thrombosed from the foot to about 1 inch below the saphenous opening. I did Trendelenburg's operation, viz., ligatured the saphenous vein high up close to the saphenous opening, and then tied two large masses of thrombosed veins above and below the knee. I did not remove any part of the vein. The result has been highly satisfactory. In my opinion the vein is seldom thrombosed right up to its juncture with the femoral, in which case Trendelenburg's operation is justifiable in all cases of thrombosis as soon as the inflammatory stage is over.

Mr. MCADAM ECCLES: I think we must congratulate Mr. Garry Simpson on the eminently satisfactory result in his case. He has raised the question of the advisability

of ligaturing the internal saphenous vein on the proximal side of a recent phlebitis, with or without thrombosis. The dictum that the vein at the actual site of phlebitis should not be disturbed is a very sound one; but ligature of the internal saphenous at or close to the saphenous opening is assuredly one which is quite justifiable, especially in view of the prevention of detachment and movement of clot. Mr. Simpson has done this in his case, without dissecting out the thrombosed portion of the vein, and the result shows the correctness of his treatment.

Mr. PERCY PATON: The course which has been followed by Mr. Simpson in his patient has, I think, been very clearly justified by the result. During the last few years a good deal more attention has been drawn to the advantages of tying the internal saphenous vein near the saphenous opening in cases of thrombosis in the vicinity of and especially just above the knee, in which situation there seems to be a very special liability for a clot to be dislodged, and there can be no doubt that if the vein be tied at a spot where it is healthy it is a most excellent practice. I quite agree that the transverse incision is the best one to use, and always employ it myself.

ORDINARY MEETING.—Friday, February 5, 1904.

Dr. SEYMOUR TAYLOR, President, in the Chair.

THE following gentlemen were unanimously elected members of the Society: George Arthur, M.B., Ch.B.Glasgow, 30, The Avenue, Ealing, W.; W. Kinsey Morgan, M.D., Dunelm, Hillcote, Richmond Hill, Bournemouth; A. J. Henton Saw, M.D., B.C.Cantab., Perth, W. Australia.

On some Points in Functional Albuminuria.

Dr. SAMUEL WEST read a paper on this subject, for which see page 73.

The PRESIDENT: Provided that "catheter" specimens of urine contain albumen, I regard all such cases as pathological; but it is necessary to supplement this evidence by careful microscopic examination. If this reveals the existence of casts from the renal tubules, or of free blood, or an excess of desquamated renal epithelium, then I consider that the evidence of inadequacy of the secretory apparatus as absolutely positive. There is one point of considerable

clinical interest which was not alluded to by Dr. West. It is this. How soon after the appearance of albumen in the urine may we look for cardio-vascular changes, *e.g.*, increased tension in the radial pulse, an accentuated second aortic sound, and displacement outwards and downwards of the heart's apex beat? If these conditions have supervened, although albuminuria may be fugitive, I think that all careful physicians will regard such cases as coming under the category of Bright's disease.

Dr. G. A. SUTHERLAND: There are many varieties of functional albuminuria, and my own attention has been directed chiefly to the postural or orthostatic variety. This is a definite form of albuminuria, being directly induced by the adoption of the erect posture, so that the urine is free from albumen when the patient rises in the morning, becomes albuminous soon after he has risen and walked about, and shows a decreasing amount of albumen as the day goes on. The period of life at which it most frequently occurs is early adolescence. It is a symptom merely but it does not occur in healthy children. The accompanying symptoms are not those of nephritis, and if one finds tube casts, or arterial thickening, or a high tension pulse, a diagnosis of pure postural albuminuria must be excluded. The accompanying symptoms, so far as my experience goes, are those of general vaso-motor disturbance, and are best summed up by the term neurasthenia. The classical descriptions of neurasthenia in adult life will be found to be reproduced very exactly in those patients with postural albuminuria. If in addition to the urinary system, the other systems are examined, one will invariably find some typical neurasthenic symptoms. I shall refer only to the cardio-vascular system. The hands and feet are of a dusky colour, cold, and suffering from a sluggish circulation. The pulse tension is low, the volume is small, and if the arm be raised above the head it will frequently be difficult to feel any pulse at all. The cardiac action is weak, irregular, and rapid; the first sound at the apex is weak, and there is a marked condition of cardiac atony, which examination shows to be dependent on the impaired nervous control. The prognosis of postural albuminuria is too often based on the view that it is an early symptom of nephritis. These cases of postural albuminuria have now been recognised by the profession for more than twenty years, and no one has ever recorded an uncomplicated case which had developed into organic renal disease. From my own experience I have been led to base both prognosis and treatment on the view that the

underlying condition is one of neurasthenia. Such a view will probably be found to prove the best both for the welfare of the patient and the credit of the physician.

Dr. ARTHUR SAUNDERS: In these cases of albumen in the urine of the apparently healthy, there are certain points the consideration of which is certainly of value in forming a conclusion as to prognosis. To some of these I should like to refer. First, as to the *age* of the patient. Dr. Samuel West has referred to the fact that albuminuria is of frequent occurrence in infants and in boys at school-age, and that in many of these .the albumen disappears and leads to no further trouble. Transient and non-recurrent albuminuria is a frequent symptom, too, among those still older, say, from 20 to 25 years. When we come, however, to those over 30, even where no other evidence of disease is present, such as thickened arteries, increased pulse tension, or cardiac hypertrophy (*i.e.*, in those whom we can truly call *apparently healthy*), the occurrence of this symptom becomes of far greater seriousness, and generally speaking, we may say that from 30 onwards the prognosis of these cases becomes increasingly unfavourable with age. That in the young, it is not so frequently followed by serious disease is no doubt due to the far greater activity of reparative processes, and it is to the same activity of repair that recovery takes place so rapidly and completely, as well from the slight damage to the kidney giving rise to albuminuria as from the grosser changes that take place in acute nephritis. The quantity of albumen is also an important point, and though a small quantity only of albumen may be present in serious kidney disease, and on the other hand a considerable amount may be present, to disappear rapidly, completely and permanently, we may say generally that the greater the amount of albumen the more serious the prognosis. The influence of the weather, too, should not be overlooked in the causation of a passing albuminuria, and its sudden appearance during cold weather, especially when a cold north or north-east wind prevails, and its disappearance under warmer conditions, is a fact that may frequently be observed. Lastly, as to the presence of *casts*. I think there is little doubt that a simple hyaline cast may be present from time to time in any albuminous urine, and its presence is not of any greater clinical importance than the occurrence of albumen itself, but that the presence of many casts and especially of granular casts, is of far greater importance, and may be taken as evidence of chronic disease of the kidney.

Dr. CLIPPINGDALE: I hope this important discussion will be brought to the notice of certain Civil Service Medical Examiners who find "Bright's disease" wherever there is the slightest trace of albumen, and thereby prevent perfectly healthy young persons from earning a living long after they have become otherwise eligible for appointment in the Service.

ORDINARY MEETING.—Friday, March 4, 1904.

Dr. SEYMOUR TAYLOR, President, in the Chair.

Adenoid Growths, when and how to Operate.

Mr. G. A. GARRY SIMPSON read a paper on this subject, for which see page 80.

The following discussion took place:—

Dr. FURNISS POTTER: I have been much interested in listening to Mr. Garry Simpson's paper, and I am in complete accord with all he has said in the first part of it, viz., that in reference to the indications for operation. I cannot quite agree with his remarks on breathing exercises. Granting, for the sake of argument, that they *may* have some value, the *carrying out* of this form of treatment seems to me to be quite impracticable in ordinary private practice. I should like to know in how many ordinary households breathing exercises would be practised thoroughly and efficiently, as Mr. Garry Simpson suggests. In my opinion there is much less upset and trouble and a decidedly more certain result in the operation for removal. I must express a strong feeling of disapproval of relying on "gas only" as the anæsthetic in the removal of adenoids; the time is so short—30 or 40 seconds—that if there be any slight delay from any cause, such as readjustment of the gag or rigidity of the soft palate interfering with the ready introduction of the curette, &c., the patient begins to come round, the operation becomes a hurried scramble, and in all probability is incompletely performed. A considerable proportion of the so-called "recurrent" cases are in my opinion instances of incomplete removal, owing to hurried operating under "gas only." Thoroughness of removal is much more important, in my opinion, than aiming at the minimum number of seconds in which the operation can be done, and I feel certain that thoroughness cannot be assured in the short time which "gas only" allows. I consider that

nitrous oxide gas and ether is the most satisfactory combination for the adenoid operation; by this a period of about three minutes can be obtained, which, as a rule, gives ample time for complete removal. As to somnoform, the fact that it has a tendency to early abolition of the cough reflex is a sufficient reason, in my opinion, to regard it as anything but suitable for these cases. I have had a considerable experience of chloroform in former years in adenoid operations and, fortunately, have never witnessed any serious mishap; yet, comparing it with gas and ether, although the latter certainly gives rise to more hæmorrhage, there is no doubt that with chloroform one encounters a much larger proportion of cases which give rise to anxiety. With ether I contend that if properly administered, and the breathing be kept clear, there need be no anxiety on account of the anæsthetic. The Gottstein curette is apt to be a treacherous instrument in this way—in some cases I have found that after repeated trial the curette would not catch the adenoids, but would slip over them; this is more apt to be the case if the edge is not very sharp. It may also happen that in using this instrument the clump of growth may have been cut through, but has failed to be completely severed, and is left hanging by a thin ribbon of mucous membrane just below the border of the soft palate. One reason for this is, that in the sweeping movement given in using the instrument the blade is not brought sufficiently low down on the pharyngeal wall before withdrawal, and so fails to effect complete severance. I think, on the whole, the forceps is the more certain and reliable instrument, although its use takes more time, but then, to my mind, the expenditure of two or three more minutes is of no account as compared with thoroughness of removal. As regards the position of the patient, I gathered from Mr. Simpson's remarks that in the dorsal position there is much more need to complete the operation with rapidity than when the patient is lying on the side. I fail to see the reason for this.. I am in the habit of operating with the patient lying on the back, and a substantial pillow or sandbag placed under the nape of the neck, so arranged that the vault is the lowest part of the pharynx, and thus the likelihood of any blood finding its way into the larynx is reduced to a minimum. I rarely find it necessary to hurry the operation, in fact, I am accustomed to take as much time as I require for thorough removal, and to feel assured that I have not left any remnant tags, which experience has taught me is by no means unlikely if due care be not taken. The

use of a forehead mirror to reflect light into the throat seems to me to be more of a troublesome encumbrance than a help, one must rely on the sense of touch for working in the post-nasal space, and the same sense is a better guide than that of sight for slipping the ring of the tonsillotome over the tonsil.

Dr. J. B. BALL: Of the two questions with which Mr. Garry Simpson has dealt in his interesting paper, viz., when to operate and how to operate, I think the question when to operate, that is, in which cases to operate, is the more important. The pharyngeal tonsil is, normally, well developed in young children, and the line between the normal and the hypertrophied tonsil is not easily defined. Although it is not easy to define where the normal tonsil ends and the hypertrophied tonsil begins, it is easy to recognise where the disease, as betrayed by certain symptoms, begins. It is, moreover, certain that a moderate enlargement of this tonsil often exists without producing any symptoms whatever. Should we operate in these latent cases of moderate hypertrophy? I certainly think not. Moreover, there are cases, borderland cases as we may call them, in which the symptoms are very slight and trivial, perhaps a little tendency to mouth-breathing, in which we are not, in my opinion, justified in advising operation. It is in these cases that the breathing exercises alluded to by Mr. Simpson are especially useful and effective. I am afraid that it would be hard to get any patient to carry out these for half an hour three times a day, as Mr. Simpson recommends. I think a quarter of an hour twice a day is as much as can be expected, and it is enough. The medical attendant should supervise these exercises at the commencement and have the chest well exposed and see that it is expanded normally, and that the diaphragm acts well, the child breathing through the nose all the while. Mr. Simpson has alluded to the cases of acute and subacute enlargement of the pharyngeal tonsil. There is obviously no reason to rush in and operate on these cases, in which the symptoms of adenoids have existed for a few days or weeks, coming on after a bad cold, or an infectious fever, as it is sufficient to wait a few weeks, when all the symptoms will subside. Still, a frequent repetition of such attacks may constitute a good reason for recommending operation. The four main indications for advising operation in cases of adenoids are, I think, the following: (1) Habitual mouth-breathing in a child, which shows no sign of improvement, and has existed for a considerable period. (2) Chronic deafness, repeated attacks of deafness

or earache, or chronic otorrhœa. (3) Repeated attacks of bronchitis, or the presence of asthmatic symptoms. (4) Repeated colds in the head, of a severe or prolonged character, or paroxysmal sneezing and hay fever symptoms.

Mr. STEPHEN PAGET: I think the risk of increased loss of blood is a serious argument against doing the operation very deliberately, and that there is no positive evidence of the necessity for a protracted operation. Personally, I prefer to have gas administered and get the operation finished with as little use of instruments as possible.

The PRESIDENT: There is one question which is frequently put to us by parents when we recommend that their children should undergo the operation for ablation of adenoids, which is—What is the risk of the operation? in other words, What is the death-rate of the operation, taking all accidents, such as may arise from hæmorrhage or anæsthesia, into consideration? It would be a great advantage to us if we could assure them from authoritative statistics that the risk is comparatively *nil*.

Mr. MCADAM ECCLES: I would like to ask Mr. Garry Simpson up to what age he advises operation. In those over puberty, in which acute rhinitis recurs, will the operation of the removal of the pharyngeal tonsil tend to a cure?

Mr. A. B. KINGSFORD: I should like to support Mr. Paget's advocacy of gas for adenoid operations. At Gray's Inn Road (Central London Throat Hospital), gas has been given for such operation 17,000 times without a single fatality, so completely to the satisfaction of the surgical staff that chloroform has for some three to four years been entirely discarded in its favour. We have given gas to great numbers of children under 10; in fact, to most of 4 years old and upwards. Younger children were generally anæsthetised with "a whiff of ether." We are all agreed as to the inconvenience of the rigidities caused by gas, especially that of the palate, and as to the difficulty of anæsthetising children fully without asphyxiating them more or less, and the consequently brief duration of anæsthesia in them. We were therefore glad to find that somnoform has some great advantages, especially for children, in spite of its rather more often being followed by sickness than gas is. Its induction of anæsthesia is rapid—in children, from ten to twenty seconds sometimes; it rarely causes any rigidity, and it anæsthetises children often for one minute, sometimes for two minutes, without asphyxiating them in the least. From our experience of 1,500 cases, we think the danger of blood getting down the larynx practically very small—

in the "upright" operation. Once, owing to misunderstanding, this accident happened; but the patient was fully brought round after thirty minutes artificial respiration. As to "hurry" over the operation, our staff say the recurrences are very few, and that though the time afforded by gas usually suffices for the operation, the extra time allowed by somnoform for the more difficult cases is welcome.

Dr. G. E. SHUTTLEWORTH: May I be permitted to ask Mr. Garry Simpson a practical question as regards the after-care of children after removal of adenoids? He has described certain breathing exercises, which he prescribes in milder forms remedially; is it not also necessary to adopt similar exercises to counteract the habit of mouth-breathing, which often persists subsequent to operation? Such, at any rate, is my own experience in the case of feeble-winded children with whom I am chiefly conversant, and I am in the habit of using for such, breathing exercises in the erect posture, as part of their daily school drill. This is more interesting and less formidable than similar exercise in the recumbent posture, and I should like to ask Mr. Simpson if he thinks it necessary for the little patient to "take it lying down."

Mr. GARRY SIMPSON (in reply): I frequently come across patients in whom an exudative catarrh of the Eustachian tubes is kept up by a comparatively small amount of growth around the Eustachian eminences and in the fossæ of Rosenmüller, such cases will often not improve with inflation until the offending lymphoid tissue is removed. I recommend the removal of the growth, even if patients have arrived at the age at which atrophy takes place, provided there are definite reasons. This atrophy, as adolescence advances, does not always take place. Breathing exercises can be carried out in the standing position, the mouth being tightly shut and light exercises with the arms practised. There is always some difficulty in getting these instructions carried out. I believe ninety deaths have been recorded up to the present. This was a very small percentage considering the number of operations performed.

The Use of Paraffin Injections in Surgery.

Mr. STEPHEN PAGET read a paper with this title, which will be found on page 89.

The discussion on this paper was as follows:—

Dr. J. B. BALL: I have used paraffin injections in fourteen cases of depressed bridge of the nose, and in each case I

have had a very satisfactory result. I am not very keen about injecting paraffin, that is, I should not go out of my way to get cases, as I am not sure that we know enough about the ultimate result of this operation. However, my first case was done just a year and ten months ago, and the result continues perfect up to the present. I quite agree with Mr. Paget that we should be careful not to inject too much. It is better to be under than over the mark. I certainly made too big a nose in one case, although the present condition is a great improvement on that which existed before the operation. Most of my cases have been simple depressed bridge, the so-called saddle-shaped nose, without any scarring or adhesions. I have operated on three children, two of them about 10 years of age, and the third about 13. I am anxious to know how these cases will do as growth proceeds. I should be glad to know if Mr. Paget has any opinion on this point. I have only used an anæsthetic in four cases, the children just alluded to and a young girl who refused to have anything done without an anæsthetic. The operation is not painful, just the pain of the insertion of the needle. The rest is not worse than the injection of—say diphtheria antitoxin.

Mr. HOWELL EVANS: I would like to ask Mr. Stephen Paget whether in his paraffin injections he has ever employed an admixture of animal fat and paraffin impregnated with some antiseptic or aseptic chemical substance, so that when the paraffin shall have gradually been carried away the connective tissue of the part may remain locally thickened, as the consequence of the chemical irritant. In the treatment of prolapse of the uterus by intraligamentous injection of quinine sulphate, as is practised by Dr. Inglis Parsons, in suitable cases, the following is the *modus operandi:* With perfect surgical cleanliness an injection is made into the lateral vaginal fornices, the uterus is placed in its natural position and maintained thus by a pessary, until the phlegmonous cellulitis shall have led to a firm consistency of the broad ligaments, which subsequently prevent a recurrence of the prolapse. I would like to learn from Mr. Stephen Paget whether he considers any similar process possible with paraffin injection.

Mr. STEPHEN PAGET: I have not used any chemical irritants with paraffin injections, so have no experience of the results. The main points to bear in mind with paraffin injections are (*a*) to inject the paraffin in the submucous tissues, (*b*) not to attempt to do too much at the time.

Mirror of Practice.

CASE OF INTUSSUSCEPTION IN WHICH 26 INCHES OF INTESTINE WERE PASSED.

By H. Percy Potter, M.D., F.R.C.S.
Medical Superintendent, Kensington Infirmary.

In many cases of intestinal obstruction diagnosis is not easy. There may be absence of classical features and symptoms, leading one to suggest that the nature of the illness is some other than that actually present. The true nature of the disease in this case was not recognised, and the serious character of the condition was overlooked.

The evacuation of portions of intestine connected with intussusception, although of rare occurrence, has been noted and reported from time to time in the journals and Transactions of societies. When there is a firm adhesive union of the entering tube to the angle between the outer and middle layers, the canal of the bowel may be re-established and a permanent cure may result. On the other hand, in some examples of the attempt of Nature to cure the mechanical obstruction, the peritoneal union may not be complete, or the cohesion of surfaces may be fragile, give way, and lead to leakage and peritonitis.

In the case here recorded the sloughed intestine was evacuated in its entirety with attached mesentery; it consisted of small bowel which was firm and bile-stained. Since the entering layer as it disappears into the intussusception causes the middle layer to increase *at the expense of the outer layer*, probably in this case the entering or central tube was the ileum, the receiving tube likewise the ileum, for this reason—the evacuated gut at its distal end had not been connected with large intestine.

Perhaps the notes of the case may prove interesting as affording an example of the possibility of a natural cure by sloughing and passage of the strangulated bowel.

J. W., a delicate and thin boy, aged 16, was admitted to the Kensington Infirmary, May 13, 1902, for "inflammation of the bowels and peritonitis." For a period of five days before admission he had sudden abdominal pain, constipation and vomiting. The surgeon in attendance

ordered successive enemata without any satisfactory result. When admitted the abdomen was distended, tympanitic in front, dull on percussion towards the flanks, and very tender, especially in the region of the appendix. There was no evidence of violent peristalsis. No vomiting. Pulse 126, weak. Rectum empty, no blood nor mucus. Tongue coated, white. Urine normal. Collapsed with cold extremities. A hot nutrient enema was given and a laparotomy was decided upon. This was performed on the evening of admission. The lad took the anæsthetic fairly well, and an oblique incision 2½ inches long was made over the region of the appendix, which was exposed and found to be normal. Besides slight congestion of peritoneum and gut, nothing abnormal was found, and no cause of obstruction discovered. The examination of the abdominal interior was necessarily hurried on account of the patient's collapsed condition. The wound was sutured and dressed with gauze and wool; he was quickly put to bed and hot-water bottles supplied. During the next few days he was fed entirely *per rectum* and appeared much better; formed fæces and much flatus were passed on the 15th; there was frequent retching. The tongue became cleaner, and marked dulness in the course of the ascending colon was found. On the 18th he retained milk taken by the mouth; tympanites was relieved by turpentine enema. The bowels were open naturally every alternate day. He was making steady improvement when on June 2 he passed *per rectum* an elongated substance which proved to be small intestine, with some attached mesentery, measuring upwards of two feet in length.

From this time the patient made an uninterrupted recovery and has since become a frequent visitor to the sick in the Infirmary.

A CASE OF EXTRA-GENITAL SYPHILIS.

By Arthur Whitfield, M.D., M.R.C.P.

Physician to Skin Department, Great Northern Central and King's College Hospitals.

The following case is perhaps of interest because, in the first place, extra-genital chancres are not very common, and in the second place, the origin of the infection is precisely known and the cause of the transmission almost certain.

J. W., aged 21 years, a labourer, came to my out-patient department on February 3, 1904, complaining of a rash. On examining him I found that he was suffering from an unusually copious, large, papular syphilide, scattered all over the trunk and extremities, but especially affecting the back and the extensor surfaces of the arms. In addition to the large papules he also had scattered with no particular grouping between these a fairly thick crop of small lichenoid papules in places almost completely counterfeiting the lesions of lichen planus. A rather interesting point also was the occurrence of these small papules in lines about the chest and abdomen, thus still further copying lichen planus in their arrangement. On looking for the primary sore on the penis I found there was no sign of disease there, and at the same time I was struck by the unusually large size of the left inguinal glands, which were hard and painless. On making the patient drop his trousers completely I found a large superficial sore on the left buttock a little above the gluteal fold and about midway between the anus and the great trochanter.

The history the patient gave was that he had had this sore for about a month, and the rash had commenced coming out during the last fortnight. He also gave a history of itching which was worse at night, and told me that I had his brother under treatment, and that he had slept with his brother until after he had seen me for the first time, when they separated on account of my having warned the brother that the disease was contagious. On looking up my notes I found that I had first seen this patient's younger brother, aged 17, on December 2, 1903. He had come up with a Hunterian chancre on the dorsum of the penis, a secondary rash of syphilis and scabies. He was intensely dirty, and as a result the primary sore was ulcerating rather severely and discharging profusely. He was in the habit of sleeping in a flannel day-shirt only. This boy admitted having exposed himself to infection in the ordinary manner, and was given the usual caution about conducting himself with regard to the safety of others, though apparently too late. As far as I can understand it, the course of events was as follows: One brother infects himself with scabies and syphilis by impure connection. He then sleeps with his elder brother until after symptoms of syphilis are very marked, and he has a freely discharging chancre upon which he wears no dressing. Owing to the fact that he sleeps only in a short flannel day-shirt and is very filthy, it is practically certain that a lot of the discharge would reach the bed-

clothes. The brother, who sleeps with this patient, acquires scabies as he would be almost certain to do (he did give me a history of great itching which he had gradually cured by means of sulphur ointment). When I saw the second patient there were no signs of scabies present, but he said that he had ceased to itch. In the scratching entailed by his scabies the second patient abrades the skin of the buttock, one of the favourite sites for the eruption of scabies, and then by means of the filthy bedclothes or possibly dirty hands, infects this abrasion with the virus of syphilis. A further interesting point is that the pre-existing scabies and consequent scratching probably determined the eruption of the small papules in lines. It is well known that if the skin be exposed to slight trauma at the time that the rash is coming out in the early stages of syphilis the rash will be partially determined by the position of the trauma, though this is not so well marked as in the later stages where the actual appearance of the lesion at all may be determined by irritation.

As regards the appearance of the initial lesion on the buttock, since this is a rare position, it may be worth a few words of description. The lesion was in the form of a shallow ulcer with rolled and slightly everted edges. The base was very dark red and rather sloughy, the patient being, like his brother, extremely dirty. Induration was marked but quite superficial, as it has been in the case of all the chancres on the back which I have seen.

Under a local dusting powder of calomel and starch, and the internal administration of three grains of grey powder daily, the sore has practically disappeared, and the rash is rapidly involuting, though for the first week after I commenced treatment it continued to increase in profusion.

Hospital Notes.

By Charles Buttar, M.D.

In most of the following cases the chief symptom complained of was abdominal pain; in many the diagnosis was difficult, and in some the nature of the case was determined only after operation.

Pneumonia simulating Acute Abdominal Disease.

In the following case of pneumonia the diagnosis was difficult at first, owing to the patient presenting signs of acute abdominal disease.

E. S., aged 9, a schoolboy, was admitted under Dr. Hood on January 25, 1904, complaining of pain in the abdomen and legs. Two days previously he slipped on ice, but he did not seem much hurt by the fall. The evening before admission he felt ill and suffered pains in the abdomen. He was not sick, and the bowels acted naturally. When admitted to the hospital he was cold and collapsed; his face was dusky and pinched. The alæ nasi moved considerably in respiration. The breathing was very shallow, and suggested abdominal pain; the frequency of respiration was 52. His tongue was furred. No physical signs were detected in the chest. The abdomen did not move with respiration. The pain was located round the umbilicus, but there was no marked tenderness on pressure, and no dulness to percussion. The legs were drawn up and the left painful, but no signs of injury were discovered. The pulse was 90, and the temperature 101°.

The patient was seen by Mr. Swinford Edwards, but no diagnosis was arrived at. The altered ratio of pulse and respiration suggested the possibility of pneumonia.

On January 26 the resonance at the base of the left lung became impaired. The patient experienced distress when placed on his right side. There was now some cough. The abdominal pain was less. On January 27 the dulness became distinct, and was associated with bronchial breathing. A systolic murmur conducted outwards was heard at the heart's apex, which was outside the nipple line. By the 29th the whole of the left lung was dull. There was dulness and bron-

chial breathing at the base of the right lung. The cardiac dulness increased. On February 4 the distress was considerable, and an exploring needle was inserted on each side of the chest without result. The patient's cyanosis was relieved to some extent on February 5 by four leeches. The following day pericardial friction was heard. The condition of the lungs had improved, but otherwise the patient remained in the same condition until February 10, at midnight, when he became collapsed, with laboured breathing and cyanosis. Oxygen inhalations and venesection were tried, but the patient died at 4 a.m. The temperature varied from 100° to 103° during the whole illness, the pulse 120 to 140, and the respiration 50 to 70. *Post mortem* the heart was found to be covered with lymph and its muscle pale and flabby. There were vegetations on the mitral valve. In both lungs the lower lobe was solid.

Uræmia due to Disease of a Solitary Kidney.

F. C., male, aged 20, was admitted under Dr. Hood on February 7, 1904, complaining of pain in the abdomen and a rash on the body. He had whooping cough and an abscess in the groin while a child. He says that six years ago he had pleurisy and "abscess of the liver." Three weeks before admission he felt unwell and ten days later he began to vomit. He remained sick and drowsy, and was delirious at night. On February 6 a rash was noticed on his chest and abdomen. His bowels had not been opened for four days. On the following day he was brought to the hospital semi-conscious and with stertorous breathing. He was very irritable when touched or moved. His pupils were widely dilated; the tongue was foul, and the lips covered with sordes, dry, hard and cracked. There was nothing abnormal in the chest. The abdomen was rigid and tender, but nothing unusual was felt. The rash was erythematous and papular, with some purpuric spots. Pulse 72, temperature 96·8°; respirations 20. The urine contained a small quantity of albumen. Urine and fæces were passed unconsciously. During the evening of February 8 the patient rapidly became worse, and died. *Post mortem* the left kidney was found to be absent, the ureter being represented by a fine fibrous cord. The right kidney was enlarged, the pelvis much dilated, and the cortex atrophied. Scattered in its substance were several abscesses, probably tuberculous in nature. The mucous membrane of the bladder

was thickened and inflamed. The small intestines were congested, with numerous submucous hæmorrhages.

Uræmia occurring suddenly in a Case of Granular Kidney.

E. F., male, aged 70, was admitted under Dr. Hood on August 14, 1903. He had not felt well for two or three weeks, but complained of nothing definite. Half an hour before admission he was seized suddenly with shortness of breath while walking. When brought to the hospital he was deeply cyanosed; his breathing short, shallow and rapid, with noisy rattling sounds in the trachea. He was a well-preserved man, in good condition. His arteries were thickened, pulse 84 and hard. His extremities were very cold, and a quarter of an hour after admission he died. On examination his heart was found to be hypertrophied, the lungs congested, and the kidneys granular and cystic.

A Case of Gastro-jejunostomy for Pyloric Thickening and Adhesions.

F. H., male, aged 23, a riding master, had suffered with pains in the abdomen since November, 1902. The pain was in the epigastric region, was worse after food, and often shot downwards into the right iliac fossa. The patient had constant vomiting, and once in the summer of 1903 he brought up a small quantity of bright red blood. The bowels were always regular, and there was no melæna. He was admitted to the hospital under Dr. Hood in June, 1903. There was then some tenderness in the neighbourhood of the umbilicus. In a fortnight he was discharged relieved. As the pain continued, he was readmitted on January 25, 1904. There were no physical signs in his chest and nothing unusual was felt in the abdomen. There was a definite tender spot in the epigastrium three inches below the fusiform cartilage and a little to the right of the middle line. As the patient did not improve, on February 29 Mr. Swinford Edwards made an incision 2½ inches long above the umbilicus. After opening the peritoneum the stomach was brought into the wound, and the pylorus was found to be thickened and surrounded by adhesions. A portion of the jejunum was then connected to the stomach by anterior gastro-jejunostomy, the suturing being done by Halsted's method. On March 4 the patient was doing well. The symptoms in

this patient always improved with rest, but rapidly recurred as soon as he began work.

A Cyst of the Mesentery, containing chiefly Blood, very Tender, and accompanied by Fever and Pain. Excision.

E. R., female, aged 17, was admitted under Mr. Keetley on January 13, 1904, for abdominal pain. She had been ailing six or eight weeks. She had had three attacks of severe pain which was referred to the umbilicus. The day before admission the pain returned with great violence. She did not vomit, and there was no fever. The pain subsided after an enema, but returned the same evening, accompanied by vomiting and tenderness. The patient had been treated for anæmia for some months, but there was no other history of illness. The catamenia were regular until eight months before, but had then ceased. When first seen her expression was not anxious. The pulse was 140, the temperature 100·4°, the respirations 28. The lips were dry and cracked and the tongue coated and dirty. There was a loud systolic murmur in the heart, best heard at the apex, but also audible at the pulmonary base and at the angle of the left scapula. The pain was to the left and a little below the umbilicus. There was resistance and tenderness in this situation. In the evening of January 17 the pulse was 150 and the temperature 103·6°. Widal's reaction was tried with indefinite result. On the 27th some impairment of resonance was noted in the right lung. The tender point remained in the abdomen, so that on February 5 Mr. Keetley made an incision below the umbilicus. The appendix was found to be healthy. On examining systematically the lower part of the ileum, about a yard from the ileo-cæcal valve was found an oval, tense and fluctuating tumour two inches long, between the layers of the mesentery. Aspiration showed that it contained bloody fluid, but the swelling appeared to refill as fast as it was emptied. On laying open, blood spurted out. A little granular matter was scraped out, but the quantity of blood obscured its nature. Several small vessels were secured and tied. The cyst wall, though thin, was fleshy in appearance; it was removed, and iodoform crystals were put in the emptied space, which was drained with gauze and a rubber tube. The wound was dressed at intervals, and on February 17 the stitches were removed. As the temperature continued raised, the chest was examined on February 21

for a possible empyema. In the right axilla was found a small patch of impaired resonance with diminished vocal vibrations and vocal resonance. The patient was transferred to the care of Dr. Seymour Taylor, and at the beginning of March the dulness had disappeared and the temperature was normal.

A Case of Gall-stones with greatly Distended Gall-bladder.

M. G., female, aged 46, who had been ailing for two or three months, but able to do her work, was seized with acute pain round the umbilicus at 5 a.m. on February 22. The pain extended to the right iliac fossa. She vomited once or twice during the day. There was no history of jaundice or indigestion, and no trouble with micturition. She was sent to the hospital on February 23 for a large swelling in the right side of the abdomen, supposed to be suppuration possibly connected with the appendix. She was admitted under Mr. Paget. Her tongue was clean, pulse 96, temperature 100°. In the right side of the abdomen was a large swelling, filling the lumbar region and extending into the iliac fossa, very tender on palpation, tense and dull. The tenderness was chiefly in the right iliac fossa. There was a distinct groove between the swelling and the liver and there was some resonance at this place. Examination *per rectum* and *per vaginam* showed that the swelling was not connected with the pelvis.

On February 24, after consultation with Mr. Armour, Mr. Paget opened the abdomen over the prominent part of the swelling. A large red mass covered with flakes of lymph was found, and this proved to be a distended gall-bladder. The swelling, after being isolated with gauze, was punctured with a trochar, and about a pint of bile-stained mucoid fluid drawn off. The gall-bladder was found to be full of stones, of which 159 were removed. The edges of the opening were then stitched to the peritoneum, and a tube packed round with cyanide gauze introduced. The wound was syringed daily with weak boracic lotion. Three more stones came away subsequently. On March 2 there was no pain, the temperature was subnormal, the gall-bladder much smaller, and the patient doing well.

Reviews and Notices of Books.

NOBLE SMITH ON LATERAL CURVATURE OF THE SPINE, &c.[1]

We have read with pleasure and profit Mr. E. Noble Smith's able treatise on the widely-prevalent, yet often overlooked, condition of spinal curvature. He deals with the causes which leads up to this condition, how they may be obviated, and if declared, how they may be remedied by various methods, such as massage, suitable exercises (which are described in detail) and Chance's splint, of which last he speaks in high terms. In this connection he shows how, that due consideration being given to the development and correction of errors of the thorax, many pathological conditions of the lung—more especially phthisis—can be alleviated. The value of this work is enhanced by many practical suggestions with reference to the correct clothing and feeding of growing children.

OVERALL ON THE NON-SURGICAL DISEASES OF THE PROSTATE.[2]

This book consists chiefly of an eulogy of electricity as applied by the author to the urethra and prostate. The use of an electric current for the cure of stricture and other morbid conditions of the urethra is no new thing; indeed, it has had its day, and has long since ceased to be regarded as of very much value. But Dr. Overall has apparently convinced himself that by its means nearly every disease of the urinary tract can be most favourably influenced, if not cured. We may say at once that nothing we have met with in these pages tends to alter our scepticism as to the alleged advantages of electrolysis of the urethral canal, although we admit that in a very limited number of cases it is of service. Dr. Overall's views upon the nature of

[1] "The Management of Lateral Curvature of the Spine, Stooping, and the Development of the Chest in Phthisis." By E. Noble Smith, F.R.C.S.Edin., &c. London: Smith, Elder and Co., 15, Waterloo Place. 1904.

[2] "A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa." By George Whitfield Overall, B.A., M.D. Rowe Publishing Company, Chicago, U.S.A. Pp. 207, 26 illustrations. Price 2 dollars.

senile enlargement of the prostate are not in accord with the more modern conception of its character, and it would almost appear from this book that he has not taken the trouble to consult the copious literature of the last half decade upon the subject. He considers that more men past the age of 55 suffer from "congested enlargement" than from a "hypertrophied condition of the gland." The former condition the author describes as "passive venous congestion, soft submucous infiltration, and a swollen enlargement of the organ, which generally results in inflammation not only of the gland itself, but of most all the other pelvic viscera." The latter he considers to be "an indurated enlargement, as an outgrowth of the muscular fibres of the gland." These quotations will suffice as a fair sample of the author's pathology.

This is not a book which will benefit the student of diseases of the lower genito-urinary tract.

HERRING ON THE STERILISATION OF URETHRAL INSTRUMENTS.[1]

As Mr. Herring truly says in his preface to this volume, there is no branch of surgery in which the ordinary rules of surgical cleanliness are more frequently violated than in that connected with urinary complaints. The strict rules of asepsis are not usually applied to the performance of urethral instrumentation, not only by the patient himself, but also by his medical attendant, who would, however, deem such neglect in the case of most other surgical procedures extremely reprehensible. The reason for this is not far to seek. It lies in the fact that very little attention has been paid by surgeons in general to the question of catheter sterilisation, and aseptic instrumentation. Almost every kind of bougie and catheter, both soft and metallic, is now made of such materials that it is quite possible to sterilise it by boiling, and when instruments are only occasionally used they may very well be boiled in an ordinary steriliser; but when urine can only be voided by the catheter it is a very necessary matter to secure some simple process, not only of sterilising, but also of storing the supply of instruments needed by a patient for the whole day, for it is obviously impossible for the majority of men to use an ordinary steriliser

[1] "The Sterilisation of Urethral Instruments and their Use in some Urinary Complaints." By Herbert T. Herring, M.B., B.S.(Durh.), M.R.C.S. Pp. 176, with illustrations, demy 8vo. Price 5s. London: H. K. Lewis.

each time that an instrument is required. To ensure aseptic instrumentation, however, not only must the instrument be sterile, but so also must the lubricant, the hands, and the glans penis be thoroughly purified. We think that Mr. Herring, by the extremely ingenious and simple apparatus devised by him, has largely reduced the difficulties attendant upon an apparently simple procedure.

The principle of his steriliser is briefly as follows: A tube is used rather longer than the instrument to be sterilised, and containing it with some room to spare, open at both ends, about 14 inches long and ⅜ of an inch in diameter. The ends are fitted with rubber stoppers or plugs shaped like funnels. When in place the outer margin of the plug is doubled over the tube, and fits it closely. A small funnel is supplied, which slips easily into the top of the sterilising tube. It has a loose fitting lid and a wire gauze diaphragm, which is perforated by two holes to receive the rubber plugs when they are to be sterilised. A small flask, holding a little less than one ounce, is fitted to the bottom of the tube by an easy joint. The flask is filled with a mixture of liquid vaseline and water, a catheter is placed in the tube, which is then joined to the flask. The two rubber plugs are placed in the funnel, and the latter joined to the top of the tube and the lid closed. The flask is then held over a spirit lamp, and the mixture in it soon boils and bubbles up into the funnel and covers the plugs. The whole apparatus is allowed to cool, and the tube is disjointed from the flask and one of the rubber plugs inserted; the funnel is removed from the top, and the other plug inserted, and we now have a sterile catheter in a metal case, ready for immediate use, as it is covered from end to end with the liquid vaseline forced up by the boiling.

Other equally ingenious modifications of this principle are described; but we would direct our readers to the pages of Mr. Herring's book for full information. The author is sanguine enough to hope that having provided our patients with an easy method of sterilisation, and instructed them in the art, they will thenceforward never infect the urinary passages. We wish we could believe that the nature of the average hospital out-patient could be changed to the requisite degree for the attainment of this perfection; but we fear that not all the lessons nor the most perfect methods will protect him against himself. All credit is due to Mr. Herring for his insistence upon the necessity for asepsis, and his patience and ingenuity in devising instruments to ensure it.

SUTHERLAND ON DISPENSING MADE EASY.[1]

We have no hesitation in stating that this book supplies a long-felt want, as we know of no other similar treatise which is of any real assistance to the dispensing medical practitioner. It has evidently been written by one who thoroughly understands the difficulties which every medical man who owns a large practice, in which club and parish work is included, has to contend with; and valuable advice is given as to the best, quickest and cheapest methods of dispensing drugs.

It is difficult to quote from a work in which every page contains useful hints, and we should strongly advise medical men engaged in dispensing work to obtain it, as, considering its small cost and compact size, it deserves to find a place in every dispensary.

FLORENCE STACPOOLE ON AILMENTS OF WOMEN AND GIRLS.[2]

The object the authoress has set herself is to give in clear and simple language full directions which will enable women not only to understand how to keep themselves and their children healthy, but to know when to seek skilled advice. This object, we consider, she has well attained. The book is free from the grave fault of so many of its kind—it does not teach the patient to attempt to treat herself.

The chapter on the care of girls at the period when menstruation is appearing should be read by every mother; and we are heartily in accord with the authoress in her views that girls' educational establishments are too often run on the absolutely untenable theory that there is little if any real distinction between a girl of from 14 to 20 and a boy of the same age, and that girls are in consequence frequently overstrained.

We also agree with the authoress in her views on the use of baths during the menstrual period. It is extraordinary what a number of women, who otherwise are extremely particular in all that appertains to cleanliness, will abstain from all ablutions during that period, from the want of a

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[1] "Dispensing Made Easy," By Wm. G. Sutherland, M.B.Aberd. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd. 1904.

[2] "Ailments of Women and Girls." By Florence Stacpoole. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd. 1904.

little knowledge on the subject. Admirable chapters on such subjects as the care of delicate girls, amenorrhœa, dysmenorrhœa, constipation, the menopause, &c., are given. The book is one which may be confidently recommended by every medical man to his female patients.

LLOYD LAVAN ON THE DISEASES OF THE MOUTH AND TEETH.[1]

The busy practitioner who has not devoted special attention to the accessory sinuses of the nose, but who wishes to have the best result of the work done in this region will before him in a concise and easy assimilable manner, put find that this little monograph gives a clear, succinct outline of the subject. The value, however, would have been greatly enhanced by the addition of a few illustrations, as it appears to us impossible for the reader to get a complete understanding of this region without some pictorial help to the letterpress. The author lays little stress on the inconstancy of size and position of the antrum. The bony wall between the inferior meatus and antrum is not always a thin plate, but sometimes a very thick layer of bone. The doubt thrown on the connection between ozæna and antral suppuration (p. 16) is hardly in agreement with the best authorities, notably, Grünwald, who is of opinion that in all cases of ozæna there is disease of one or more accessory cavities. Some exception also must be taken to the statement that there is no fear of missing the antrum in perforating through the socket of the anterior buccal root of the first molar, even if it is very small. There is sometimes considerable difficulty in finding it. These are only a few points in what is otherwise a useful little book.

ALLAN'S MEMORANDA ON INFECTIOUS DISEASES.[2]

A useful compilation of the principal symptoms of the infectious diseases, which may be recommended to school teachers and others having the care of children. No attempt is made to describe the symptoms or the rashes in detail, but only to give such signs as may serve as a guide to the teacher or parent, and so enable him to detect infectious illness in its earlier stages.

[1] "The Diseases of the Mouth and Teeth." By Lloyd T. Lavan, L.D.S., R.C.S. Part I., "The Diseases of the Antrum." Adam Bros., 27, Old Jewry, E.C. 1903.

[2] "Memoranda on Infectious Diseases." By James W. Allan, M.B. Bristol: John Wright and Co. 1904.

MARK ROBINSON'S GUIDE TO URINE TESTING.[1]

A compilation of the simpler tests and facts concerning urine, which should prove useful to nurses and students. It contains all the tests necessary for the qualitative analysis of urine, and points out the fallacies which may occur in the process.

SUCKLING ON MOVABLE, OR DROPPED, KIDNEY.[2]

The style of this pamphlet is strangely familiar. Indeed, with a few pen-and-ink portraits of those cured, and a brushing up of the English, it might be considered worthy of the advertisement columns of some of our newspapers.

We regret that the limitations of space forbid us giving even a tithe of the evils which result from the above condition, but our readers will be glad to learn that all that is needed in nervous exhaustion, acute melancholia, or even "irritability of temper," is a stitch in the kidney.

WALKER ON INFLAMMATION, INFECTION, AND FEVER.[3]

Originally published in the *Clinical Journal*, the twelve lectures, of which this little book is composed, constituted the first series of the Gordon Lectures, delivered at Guy's Hospital in 1902, under the Deed of Endowment of the Research Lectureship and Laboratory established by the late Robert Gordon.

They comprise, in a compact form, a most accurate account of the various phenomena arising in connection with the processes of inflammation and infection, combined with a clear outline of the various theories to which the observed facts have given rise; while the difficult subject of immunity, with the intricacies of recent development in relation to Ehrlich's theory, is handled in a clear and satisfactory way. The insistence upon inflammation as a process, or succession of conditions, is for the right understanding of the phe-

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[1] "A Guide to Urine Testing for Nurses and others." By Mark Robinson, L.R.C.P., L.R.C.S. Bristol: John Wright and Co. 1904.

[2] "On Movable, or Dropped, Kidney: its Relation to Diseases of the Nervous System." By C. W. Suckling, M.D.(Lond.), M.R.C.P. London: H. K. Lewis, Gower Street. 1903.

[3] "The General Pathology of Inflammation, Infection, and Fever, being the Gordon Lectures for 1902." By E. W. Ainsley Walker, M.A., M.D.Oxon. London: H. K. Lewis and Co. 1904.

nomena of disease, both in its microscopic and macroscopic aspects, equally important for the physician as for the pathologist. And when we gaze in the *post-mortem* room on the gross and fatal manifestations of such processes—the last slide, as it were, of the cinematograph series lying open to our view—while recognising the hopelessness of attempting the cure of conditions before us, we should not be without the wiser reflection that at an earlier stage in the series of changes these were such as might, under beneficial influences, have resulted in repair and recovery.

We are in these lectures glad to see a protest against the teleological character of explanations of events taking place within the living body—a style of phraseology so often to be met with in books purporting to treat of this subject in a scientific way, and attaining perhaps its most absurd heights in the imaginative battle-pictures illustrative of Metchnikoff's theory of phagocytosis in some of its more elaborate developments. Of this purposive interpretation of events the author remarks: "It is worse than none, for it is most misleading, and may leave behind it an impression that something of scientific value has been said. . . . . Processes which are unfavourable in their results tend to the destruction or deterioration of the organism, and so to its elimination in the course of evolution. Similarly, processes whose results are favourable tend to be perpetuated in the race."

Under the subject of fever, the theories of Virchow, Traube and Liebermeister are duly criticised, and the phenomena of fever are investigated under the following headings: (1) The alterations in the pulse and circulation; (2) nervous phenomena; (3) the disorder of metabolism and respiratory exchange; and (4) the disturbance of temperature.

The last lecture is devoted to the examination into the heat-producing processes, or the adequate supply of heat from which the regulation of the body temperature primarily depends, and in this connection heat production, heat distribution and heat discharge are treated in order. The absence of evidence for the existence of a special heat productive centre from a consideration of the events of fever, and the phenomena of pyrexia in general, is pointed out, and pyrexia, as the result of a *disorder* of the regulating mechanism by which the processes of thermogenesis and thermolysis are nominally adjusted, and not as the effect of increased heat production or of diminished loss of heat, is properly insisted on.

We would recommend the reading of this book to all

who wish to become acquainted with a clear and precise statement as to the modern aspects of a subject in which so great and recent advance has been made

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COLLIE ON THE INFECTIVITY OF ENTERIC FEVER.[1]

In this pamphlet Dr. Alexander Collie states that he aims at demonstrating "that enteric fever is an infectious disease communicable by direct personal intercourse, just as typhus fever is." We must confess that in our opinion he fails to do so. He quotes many instances of typhoid fever in nurses and others; but the cases seem to us to be rather instances of the spread of the disease by contagion, the attacked having been brought into actual contact with those sick of the disease, and having had opportunity of becoming infected by the alvine and fluid discharges of typhoid patients. In his concluding remarks the author states "that he is not maintaining that enteric may not be conveyed by means of sewer air and sewer water, but only that in some instances this has not been made out." This remark is made after a long adverse criticism on three reports of the late Sir George Buchanan, M.D., written forty-one, thirty-five, and thirty-one years ago, in which the late medical officer of the Local Government Board attributed certain outbreaks of typhoid fever to specifically infected water supplies. It does not appear to us that this criticism affects the conclusions arrived at by Sir George Buchanan.

Considerable space is given to discussion on the length of the incubative period of typhoid fever; but the author has not taken into consideration the possible lengthening and shortening of the period due to the smaller or larger dose of the specific micro-organism of the disease which may have gained entrance to the human system. In fact, no mention of the *Bacillus typhosus* is made in this work, and looked at as a whole it cannot be said to add much to our knowledge of the disease.

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[1] "The Infectivity of Enteric Fever." By Alexander Collie, M.D.Aberd. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd.

THE LIBRARY REPORT.

THE new arrangement with Messrs. Lewis, Medical Publishers in connection with the Library—particulars of which have already been fully explained—appears to answer very well. There is a constant demand for the newest publications, and these are supplied with regularity to all subscribing members of the Society and Post-Graduates who state their wants to the Librarian or Post-Graduate Secretary.

Members are reminded that notice for any book not in the Library must be received on Wednesday in each week, and it is brought down from the publishers on the following day.

I regret to state that the "Book Club" promoted some few years ago by Mr. Keetley, at no inconsiderable trouble, for the good of the Society, no longer exists, as the membership was too small to be profitably carried on by Messrs. Lewis. The need of this "Club," however, has been diminished through the scheme now in force with these publishers, and possesses the advantage of borrowing a book at a much cheaper rate than heretofore. The old "Book Club," however, had many advantages which the latter has not, that especially of retaining a volume for a considerable time; this, however, may be arranged if the present scheme continues to receive substantial support.

HERBERT W. CHAMBERS,
March, 1904. *Hon. Librarian.*

BOOKS RECEIVED.

Medical Society's Transactions. Vol. xxvi. (1903).
St. Bartholomew's Hospital Reports. Vol. xxxix. (1903).
Philadelphia Hospital Reports. Vol. v. (1903).
Pemphigus in the Newly Born. By G. J. Maguire, M.D., 1903.
Modern Methods in the Surgery of Paralysis. By Tubby and Jones. 1903.
Books from Dr. Ar. Saunders (including) :—
Lancet, 1892-94.
Holmes: "System of Surgery." Second Edition, 5 vols.
Mansell Moullin: "Surgery," 1891.

LIST OF SUBSCRIBERS TO LIBRARY (SUPPLEMENTARY LIST) :—

Dr. Kingsford.
,, Baldock.
,, Rock.
,, Harland Peake.
Surg.-Major Hindley.
Mr. Percy Dunn.
,, Carter.
,, Hamilton.
,, E. W. Lewis.
Dr. Bagram.

THE POST-GRADUATE COLLEGE.

BY THE DEAN.

THE second Winter Session commenced on Monday, January 11. During the past three months 78 Post-Graduates have attended, in addition to the Life Members, who now number 62. Amongst these have been 11 officers in the Naval Medical Service, 4 in the Royal Army Medical Corps, and 3 in the Indian Medical Service, as well as 19 doctors from the colonies and abroad.

Special classes have been held on the following subjects: Throat and Ear Diseases (two classes), Ophthalmoscopy and Retinoscopy (two classes), X-rays (one class), Anæsthetics (two classes), Intestinal Surgery (two classes), Bacteriology (one class), Clinical Examination of the Blood and Urine (one class), Medical Electricity (one class), and Tutorial Medicine (one class). This last class commenced with the present session, being held on Wednesdays and Saturdays at 12 noon, by Dr. Russell, and it promises to be a great success. It continues during the whole of the session, and Post-Graduates may join at any time, a different subject being taken at each meeting. All the classes will be repeated during next session.

We wish to offer our congratulations to Messrs. M. S. Irani, W. S. McGillivray, and M. F. White, on obtaining commissions in the Indian Medical Service; and to Messrs. R. J. Cahill, H. B. Connell, and H. Harding, on obtaining commissions in the Royal Army Medical Corps.

It is with great regret that I have to record the deaths of Sir William Kynsey, C.M.G., Dr. R. Barnard (late R.N.), and Dr. Chorley Hall, of the Church Missionary Society.

The Annual Conversazione will be held on Wednesday, April 20, and all Post-Graduates will be invited to attend.

It is proposed to hold the Annual Dinner in the beginning of June, and the Chair will be occupied by Dr. J. B. Ball. Each Post-Graduate will receive notice of the Dinner, which we hope will prove as successful as the former ones.

Satisfactory arrangements for teaching Bacteriology and Pathology have now been made. Dr. J. P. Candler has been appointed Pathologist, and will devote his whole time to the Laboratory and Museum. A very suitable Laboratory has been provided, and classes will now be held three mornings a week there. It is proposed that each class shall last for one month. The first class under the new arrangement will commence immediately after Easter.

A new prospectus of the College is just being issued, and it will be seen that the past and present members of the West London Hospital now number over 800. A feature of the new prospectus is that the addresses of all the Post-Graduates whose whereabouts are known have been inserted. It will greatly increase the usefulness of this list if the Dean is informed of any inaccuracy.

The Hospital authorities are considering the feasibility of enlisting the services of Post-Graduates in the work of the Casualty Department of the Hospital, which would probably involve the appointment of six gentlemen as Casualty House-Physicians and Casualty House-Surgeons for periods of not less than three months. The duties would be to attend on casualties from 9.30 a m. to 5 p.m. on two days each week, and when not so engaged in the afternoons, to assist the Assistant Physicians and Assistant Surgeons of the day. Luncheon and afternoon tea would be provided by the Hospital.

The Dean would be very glad to hear the opinions of Post-Graduates on the possibility of carrying out the scheme.

The following is a list of Post-Graduates who have attended the practice of the West London Hospital during the last three months. An asterisk is placed against the names of those who are Life Members.

*L. H. Armstrong (Ripon).
Ali Akbar (Teheran).
*D. Arthur, M.D. (Shepherd's Bush).
W. H. Anderson (Boyle, co. Roscommon).
G. Arthur, M.D. (West Ealing).
*A. Baldock, M.B. (Earl's Court).
Penrose J. Barcroft (Amesbury).
S. M. Banham (West Acton).
*W. E. Barton (Streatham).
*G. J. Bagram (Bayswater).
Fleet-Surgeon H. B. Beatty, R.N.
H. W. Beach (Putney).
S. H. Belfrage (Montague Square).
G. L. Bell (Melbourne).
*Deputy Insp.-Gen. B. Bentham, R.N.
S. O. Bishop (Assam).
*R. D. Brinton (South Kensington).
*H. F. Browne, M.B. (Thames Ditton).
*E. J. Brown, M.B. (Melbourne).
A. G. Brydon (Bayswater).
*W. M. Burgess (Harlesden).
*M. G. Cadell (Bayswater).
*Capt. Carmody, R.A.M.C. (ret.).
*Major E. R. W. Carroll, I.M.S.
Capt. E. S. Clark, R.A.M.C.
Capt. Oswald Challis, R.A.M.C.
W. F. Clarke (West Kensington).
Francis W. Clarke, M.D., D.P.H. (Hong Kong).
John Clarke (Bailieboro).
*Lieut.-Col. Clutterbuck (Newcastle).
Staff-Surgeon E. Cooper, R.N.
*J. E. Coulson (Fulham).
A. B. Cox (Old Basford).
J. S. Curgenven (Lancaster Gate).
Carmel D'Amico (Malta).
Frank Dendle (Isleworth).
E. A. De Ravin (Melbourne).
*L. Dobson, M.D. (West Kensington).
W. M. Eaton (Reading).
C. W. Emlyn (Bayswater).
*A. St. Aubyn Farrer (Paddington).
*W. H. Fitzmaurice (Dunmanway).
*Fleet-Surgeon A. M. French, R.N. (ret.).
W. E. Fry (Hammersmith).
F. Gans (Notting Hill Gate).
D. Gault, M.D. (New Zealand).
*H. M. Gay (travelling).
*Edmund Gonin (Burstow, Surrey).

Jas. Graham (Cockermouth).
*A. J. Grant, M.D. (West Kensington).
*W. Grantham-Hill (Chiswick).
*C. H. Haines, M.D. (Kensington).
*C. S. Hancock, M.D. (Leytonstone).
*W. Allan Harmer (Tonbridge).
C. S. Hawkes (Queensland).
*N. Heard, M.B. (Chiswick).
Major Hendley, I.M.S.
R. Hirsch (Shepherd's Bush).
F. J. Ingoldby (Haverstock Hill).
*W. Culver James (Kensington).
*Capt. Johnson, R.A.M.C. (ret.).
Fleet-Surgeon A. J. J. Johnston, R.N.
R. A. Kirby (Westminster).
*W. B. Kirkaldy, M.D. (Kensington).
M. E. Leicester (Bayswater).
*T. M. Legge (Temple).
*T. Ligertwood, M.D. (Chelsea).
Chas. Lovegrove (West Kensington).
Lieut.-Col. Lougheed, R.A.M.C., C.M.G.
*J. Lynes (West Kensington).
*A. Barclay Lyon, M.D. (Hammersmith).
Norman Macdonald (Harlesden).
D. J. Macrae (Belgravia).
Jas. MacCutcheon (Dublin).
J. G. Macdonald (Dunedin).
W. S. McGillivray (Macduff).
*G. Maguire, M.B. (Richmond).
Surgeon H. G. T. Major, R.N.
*W. Hooper Masters, M.D. (London).
*E. D. MacDougall (Walton-on-Thames).
*J. B. McKay, M.D. (London).
*H. J. McNickle (Vauxhall).
*D. F. Maunsell (South Kensington).
A. R. MacGregor (Hampstead).
P. W. Mason (Wymondham).
Fleet-Surgeon A. W. May, R.N.
Jas. F. Merrillees (Melbourne)
A. S. Millard (Hackney).
Harrison Mitchell (Cockermouth).
*B. W. Mudd, M.B. (St. Pancras).
Zebulon Mennell (Kensington).
W. G. Mumford (Battersea).
W. Nolan (Kensington).
*W. Norbury, M.D. (Ealing).
*W. R. Olver, M.B. (New South Wales).
C. Ormerod (Croydon).
*H. M. Page (Kensington).
H. Compton Parsons (New Zealand).
A. Patterson (Chicago).
W. Harland Peake (Hampstead).
*A. F. Penny (Chelsea).
Staff-Surgeon H. L. Penny, R.N.
H. Manning Pereira (Tooting Graveney).
*R. D. Pollock (Acton).
J. Fletcher Porter (Mile End).
*A. Renny (Southampton).
*A. Rideal, M.D. (Twickenham).
*Patrick Robertson, M.D. (Canada).
Lieut.-Col. Robinson (Scots Guards).
*A. Tait Robinson (Hyde Park).
*Neil Robson (Bayswater).
*F. E. Rock (Hammersmith).
*T. Mackay Ross, M.D. (Fulham).
D. D. Sathaye (Bombay).
A. J. H. Saw (Perth, W.A.).
Fleet-Surgeon J. Shand, R.N.
*Lieut.-Col. A. Silcock, I.M.S.
Allan Simpson (Chiswick).
*G. A. Garry Simpson, D.P.H. (Acton).
*A. Ross Sinclair, M.D. (Parson's Green).
Major B. J. Singh, I.M.S.
*W. Slater, M.D. (Epping).
S. L. J. Steggall (Costa Rica).
Fleet-Surgeon W. G. Stott, R.N.
*H. H. Sturge (Maida Vale).
Irwin C. Sutton (Nebraska).
*E. Swain (Hampton Hill).
F. C. Tothill (Staines).
Fleet-Surgeon E. B. Townsend, R.N.
Alex. Urquhart, M.D. (Shepperton).
*L. A. Walker, M.D. (Notting Hill).
W. W. Walker (Kensal Rise).
*H. W. Walter, M.D. (Brentford).
Geo. Watt (Australia).
F. H. Weekes (Yorks).
*J. Williamson, M.B. (Putney).
Fleet-Surgeon J. H. Whelan, R.N.
Major G. Wilson, R.A.M.C.
*A. P. Woodeford (Shepherd's Bush).
Fleet-Surgeon W. R. M. Young, R.N.

Miscellaneous Extracts.

FORMS OF RELAPSE IN TYPHOID FEVER.—M. Coste describes the different forms of relapse in typhoid fever. First, there is the regular form, in which the relapse repeats the primary attack, usually with less severity and less pronounced symptoms. The rash reappears on the second to fifth day, and the relapse lasts three to four weeks. Then there is the febrile relapse without any typhoid symptoms or complications to account for the fever; the rash may not reappear in this form. There is an irregular form in which the temperature rises and falls, sometimes below normal, for two to three weeks; the rash is also irregular in its appearance. Another form of relapse is characterised by an abnormally large daily oscillation of the temperature; the typhoid symptoms may not be well marked, but the attack may last from three to four weeks. There is an abortive type, in which the fever lasts only from seven to nine days, and the rash may appear toward the end, or even after the temperature falls to normal.—*La Semaine Medicale; American Medicine*, February, 1904.

A NEW METHOD OF EMPLOYING ADRENALIN.—Mignon uses an ointment of adrenalin with vaseline for local application in place of the ordinary solutions of this drug. The following formula is used:—

Adrenalin	0·03 gm. (½ gr.).
Liquid vaseline	3 gm. (45 gr.).

To this is added:—

White vaseline	12 gm. (3 dr.).
Spirit of geranium	3 drops.
Lanoline	15 gm. (4 dr.).

This preparation has been successfully used in the treatment of hæmorrhoids and in rhinology. Its action is a little less rapid than after the employment of a 1 to 1,000 solution, but it is more prolonged. The ointment is preferred to the solution when persistent ischæmia is desired, as in acute rhinitis, recurrent congestive rhinitis with or without hydrorrhea. In cauterisation of the nasal mucous membrane it prevents secondary congestion. In operations which may be followed by secondary hæmorrhage it is well to apply first a 1 to 1,000 solution of the drug, and follow this by an application of the ointment. By its use it is sometimes possible to avoid tamponing in cases of hæmorrhage.—*Journal des Practiceus; American Medicine*, February, 1904.

RELATIONSHIP OF THE COLON TO ABDOMINAL TUMOURS.—J. F. Baldwin claims that the position of the colon in relation to an abdominal tumour is often an efficient aid in determining its origin. Tumours originating in either ovaries or uterus will be in the central region. The colon will be found in front of the tumour or towards its inner side. Tumours of the adrenals, or in the perirenal tissues, or from the Wolffian body, will produce an anterior or inward displacement of the colon. A tumour developing in a movable kidney usually appears outside the colon, though it may eventually enter the central area. The spleen must necessarily be on the outside of the colon, or, if greatly enlarged, will over-ride it entirely. Bearing this fact in mind, there should be no difficulty in the differential diagnosis between tumour of the spleen, kidney and ovaries. Enlargement of the liver crowds the colon down, also that of the gall-bladder. Tumours of the stomach will, of course, crowd the transverse colon downward. Tumours of the pancreas are mistaken in the female for those of the ovary; but this mistake should be obviated by the fact that in 95 per cent. of these cases the tumour appears above the colon.—*American Journal of Obstet.; American Medicine*, February, 1904.

THE IMPORTANCE OF ALBUMINURIA.—Schroeder believes that the ordinary practitioner lays too little stress on albuminuria. Thirteen years' experience is life assurance work has led him to believe that no cases can be considered as cases of "physiological" albuminuria. He quotes Lambert as saying that many applicants for life insurance, rejected fifteen or twenty years ago, are still alive, yet from four to five times more of such rejected applicants are dead than ought to be, according to the normal expectation of life in men of their years. The author does not believe that it is rational to wait, before making a diagnosis of chronic Bright's, until the classic symptoms of high arterial pressure, thickened arteries, and cardiac hypertrophy are evident. It would be as rational to wait for cavity formation before diagnosing pulmonary tuberculosis. Eight cases, taken from life insurance records, are reported, in order to illustrate the significance of so-called cyclical and transient albuminuria. All of these patients eventually died of Bright's. The author's conclusions follow: (1) It is not possible to determine the significance of albuminuria until the case has been under observation for some time. (2) Transient albuminurias are not significant unless they occur too frequently. (3) Per-

sistent and cyclic albuminurias should always arouse suspicion and lead to investigation. (4) The urine as a rule will give the earliest indication of Bright's disease. (5) Careful observation of albuminuric patients should mean (*a*) frequent examination of the twenty-four-hour specimens of urine; (*b*) frequent observation of the heart and blood-vessels. These observations may have to be carried on for months or years. (6) The most frequent causes of albuminuria are intemperance in eating, drinking and working, and the gouty diathesis. (7) The mortality among albuminuric patients is large. They offer a reduced resistence to many diseases and are prone to develop Bright's.—*Medical Record; New York Medical Journal*, July, 1903.

GANGRENOUS APPENDICITIS.—Josias narrates the case of a girl, aged 14, who had suffered from an unrecognised perforation of a gangrenous appendix, resulting in a general purulent peritonitis. When admitted to the hospital, the generally cachetic appearance, depression, and diarrhœa, favoured the diagnosis of tuberculous peritonitis. A few hours before death the child vomited pus, which made the suspicion of a visceral abscess a strong one. The autopsy revealed the abdominal condition referred to, a perforation of the diaphragm on the left side, which had given rise to a broncho-pneumonia at the left base, with a perforation of the pus into the left bronchus. This unusual termination is contrasted by the author with the more frequent subphrenic and hepatic abscesses, empyema or abscess of the lung, which are frequently encysted.—*Pediatrie Pratique; New York Medical Journal*, July, 1903.

NOTES ON NEW PREPARATIONS.

Messrs. Burroughs Wellcome and Co. have recently introduced: (1) **A Hypodermic 'Tabloid' Brand Pocket-Case in Gun Metal** of an extremely compact and useful type. The outside measurements of the case are $3\frac{1}{2} \times 3\frac{1}{8} \times \frac{3}{4}$ inches, and the case can therefore be easily carried in the pocket. The fittings comprise a special detachable, nickel-plated, aseptic frame and revolving rack for nine tubes of 'Tabloid' hypodermic products, a capsule of

ether, a glass-stoppered and capped phial, and an all-glass aseptic hypodermic syringe, with one exploring and two ordinary needles.

A glance at the accompanying illustration will show the very compact and complete nature of the hypodermic outfit.

(2) 'Tabloid' Three Bromides Effervescent. — These recently introduced 'Tabloid' products are issued in tubes of twenty-five, and are made according to the following formula :—

Potassium bromide ...	...	0·4 gramme	(approx. gr. 6).
Sodium bromide ...	...	0·4 ,,	(approx. gr. 3).
Ammonium bromide...	...	0·2 ,,	(approx. gr. 3).
Effervescent basis	...	q. s.	

Each 'Tabloid' product, therefore, contains approximately fifteen grains of the mixed bromides, and one or two may be taken at a dose as prescribed, dissolved in water. It is frequently found that a combination of bromides acts better than an equivalent dose of a single salt, and this preparation meets such indications. The addition of the effervescing basis renders the bromide much pleasanter to take than in the usual mixture.

The British Iron-Milk Syndicate, Savoy House, Strand, W.C., have forwarded for our examination samples of iron-milk (lact. ferri aromat.—Dolle), and we have pleasure in giving a very favourable report of this preparation. The disadvantages attending the ingestion of many forms of iron are well-known, namely, the resultant constipation, unless minimised by the addition of some laxative, the nauseous and astringent taste, the fact that they are ill-tolerated by some patients, who inform us that they "can never take steel," and the cosmetic disadvantage of blackened teeth.

Iron-milk is of good appearance, indeed, exactly like a fine emulsion. It is of pleasant smell and flavour, and in our experience neither blackens the teeth nor causes constipation or dyspeptic symptoms. On account of its agreeable smell and flavour children take it readily. It is an undeniably valuable addition to the list of iron preparations.

The Angier Chemical Company, Limited, 31, Snow Hill, E.C.—The well-known emulsion prepared by this Company has been in use for some considerable time, and is deservedly popular from the high level of excellence to which it has attained and consistently has maintained.

Petroleum emulsion is in appearance very like thick cream,

and under the microscope is seen to be a very fine emulsion of an oil. With the emulsion is combined a fixed proportion of hypophosphites, the mixture being practically odourless, smooth and slightly sweet to the taste, indeed, when mixed with milk, tea, or coffee giving the appearance and impression to sight and palate of rich cream.

Turning to its medicinal properties, we have found from long experience that it is an excellent demulcent, allaying and checking the irritating cough of chronic bronchitis, pharyngitis, and irritable conditions of the larynx. As a substitute for cod-liver oil it is admirable, having a markedly favourable effect upon nutrition in convalescence from exhausting illness. It is taken with ease by infants and young children, and has been found of great service in the after-treatment of alimentary disorders. We have no hesitation in pronouncing it an admirable and reliable preparation.

Alioné Patent Clothing, 64, Knight's Hill Road, West Norwood.—We have been favoured by a demonstration of the advantages of Alioné clothing for infants and invalids, and cannot speak too highly of the extremely ingenious and practical principles upon which these garments are made.

The Alioné invalid bed-gown is so constructed that any part of the body can be exposed whilst the rest is kept perfectly covered. Sitting up in bed for examination of the back, for instance, is quite unnecessary, as by rolling the patient on one side just so much of the back as is needed can be examined, whilst all the rest of the body is warmly covered. For the dressing of wounds the advantages of this form of clothing are obvious, and the only curious point is that these garments have not been previously thought of. For a patient about to undergo an operation, with prospects of a somewhat prolonged convalescence, for a chronic invalid, or for maternity cases, a few of these bed-gowns would be invaluable, and an admirable investment.

The same principles in their application to infants' clothing produce equally good results. Thus the whole of an infant's clothes can be put on or taken off in a moment by one action. In the case of irritable and sick children this avoids all the usual resistance and outcry and is as much appreciated by the nurse as it is valuable to the infant. All these garments, too, are so constructed as to admit of independent examination of different regions without undressing the child for the purpose, a point which would be appreciated by physicians desiring to examine the lungs without the disturbance of crying and sobbing.

A single set of garments can be purchased, and as many more as may be wished, unmade up, but cut out ready for the needle, thus considerably reducing the expense, which in the first instance is very moderate.

It only remains to say that the clothes can be had of the simplest or the most expensive materials to suit the wishes and purses of all classes.

Messrs. Oppenheimer, Son and Co., Limited, 179, Queen Victoria Street, E.C. — Amongst the newer preparations brought to our notice by the above firm are two specially designed for children.

(1) **"Cocoids"** are tiny pastilles containing medicament of fixed quantities carefully intermixed with a palatable chocolate basis. When used as the vehicle for conveying such drugs as hydrarg. c. creta, calomel, santonine, laxoin, &c., they may be chewed without any idea arising in the child's mind that they are anything but sweets, a very desirable end to attain. The drugs mentioned are put up in a large range of doses in this form.

(2) **Cream of Malt with Cod-liver Oil** is another preparation specially designed by Messrs. Oppenheimer to appeal to the palates of our smaller patients. It is prepared by the addition of a highly-concentrated extract of the finest Scotch winter-malted barley to the purest cold-drawn hydroxyl-free Norwegian cod-liver oil, the globules of the latter being reduced to a small size (and therefore easily absorbed and assimilated) by complete agitation with the former. The nauseous taste and fishy odour of ordinary cod-liver oil, however good in quality, is thus overcome, and children will be correspondingly grateful.

(3) For the relief of cough, Messrs. Oppenheimer have introduced a combination of terpene hydrate with heroin hydrochlorate, to which they have given the name of "pin-heroin." The constitution of this drug is as follows:—

℞ Terpin hydrat. ... . gr. i. } in each fluid
Heroin hydrochlor. ... ... gr. $\frac{1}{60}$ } drachm.
With essence of Canadian pine.

It has been found most efficacious in allaying the irritating cough of phthisis, in pneumonia, and in whooping cough. It is extremely well tolerated by children, and is non-toxic.

Messrs. Wright, Layman and Umney, Southwark, S.E.— Among the many preparations of tar now in the hands of the medical profession, **Liquor Carbonis Detergens** holds a

high place in the treatment of skin affections. Its use has been advised in most of the standard works on dermatology, a fact which speaks for itself. In the form of lotion or ointment it can be used alone or combined with such drugs as zinc, lead and mercury. In a 10 per cent. solution in water it forms an exceedingly useful lotion in cases where much irritation is present, such as eczema, lichen planus, and pruritus, allaying the intolerable itching, and exercising besides a marked curative influence. Although it has a well-marked tarry odour, this is of a pleasant rather than offensive character, and is certainly not so aggressive as that of some other tar preparations. It is readily miscible with water, forming a somewhat opalescent solution.

This preparation has kept the high standard of excellence which it has held now for some years, and is a thoroughly reliable medicament.

Any of our readers who may be contemplating the purchase of a motor car this season, before coming to a decision, should pay a visit to **Messrs. Whitlock and Co., Ltd.**, of High Street, Kensington. This well-known firm of carriage builders, in conjunction with **Messrs. Aster**, of France, whose motor engines are famous all over the world, have produced a series of cars which will bear comparison with any in the market, and may safely be described as a conjunction of the finest English carriage work with the best French engineering. Their cars are built in five sizes: a 10 h.p., a 12 h.p., and a 14 h.p., with a 2 cylinder engine; and a 20 h.p. and 24 h.p., with 4 cylinder engines, all with M.O.I. valves.

The 10 h.p. and 12 h.p. models are constructed, as to their frames, of ash with steel flitch plates, and have 3 speeds forward and a reverse, driving by means of a bevel gear; the 14 h.p., 20 h.p., and 24 h.p. models have arbel frames constructed of pressed steel, narrowed in front with very long springs, to give ease of running and comfort to the passengers, and are fitted with automatic carburettors, double-acting compensating brakes, all enclosed, and Begbie-Audin radiators. The under-parts of the engine are all enclosed by a metal shield, thus protecting them from the mud.

From this short description it will be seen that these cars are fully up to date, and it may be added that they are supplied at a price which compared with others of the same class may be said to be extremely moderate.

NOTES ON HEALTH RESORTS, SANATORIA, &c.

The Queen's Hotel, Upper Norwood.

It is often said, and too often with justice, that Londoners are the only people who know but little of the beauties and advantages of their own city.

It certainly was somewhat of a surprise to the writer of these notes to find that within the Metropolitan postal district one could obtain a fresh bracing air with quiet surroundings and lovely views. Yet Upper Norwood possesses these advantages, and it is upon the crest of this ridge of the Surrey hills, more than 400 feet above sea-level, that the Queen's Hotel is situated.

The management of this establishment has for some time past drawn attention to its claims as a health resort for those who do not desire, or are unable, to go far from London, but who require complete change, with a freedom from the noise and bustle of London life. From a personal inspection of the hotel we are able to inform our readers of the special features which render it so suitable as a residence for invalids and convalescents.

The building has been recently thoroughly resanitated and redecorated throughout, electric lighting is installed in every room, and new bathrooms fitted. The hotel stands in the midst of charming gardens, many of the ground-floor suites of rooms opening directly on to the grounds,

so that the occupiers have but to step from their windows on to the lawns. Built somewhat irregularly in the form of two sides of a square, a choice of rooms is afforded to obtain warmth in winter and coolness in summer.

The grounds slope down the side of the hill, lawns and flower-beds alternating with shrubberies and ornamental trees. One lawn in particular pleased us; sunk below the higher level of the grounds, it was protected from the east and north by high banks of rockwork and flower borders whilst opening to the south, and forming thus a veritable sun-trap, as was very apparent on the bright cold day of our visit. The well-filled range of glasshouses and forcing beds gave evidence of the wealth of blossom in store for the gardens when spring shall really arrive. The soil is dry gravel, ensuring freedom from damp, but also being a difficulty to the gardeners, who showed us how well the excessive rainfall had aided their efforts in the past year, for while on heavy soil the ground is water-logged, here the only effect has been a fine growth of the ornamental trees and shrubs.

Stress was laid upon the fact that the guests are not treated merely as hotel "numbers," but are made to feel that their well-being is a matter of personal interest to the management, as is evidenced by the fact that many return year after year, especially in the summer, to escape the heat and used-up feeling of London at night, although coming in to their work in the daytime. Special attention is paid to children sent with their attendants, whilst parents have the advantage of knowing that half-an-hour only separates them, although they are enjoying fresh air and hill breezes.

Lastly, the charges are moderate, and the special boarding terms are well within the reach of people of moderate means, although the hotel caters for the better classes. Mention may be made of the fact that amongst the patrons of the hotel have been the late Emperor Frederick of Germany and Emile Zola.

The Mendip Hills Sanatorium, Hill Grove, Over Wells, Somerset.

This institution for the treatment of pulmonary tuberculosis and allied diseases is situated high up upon the Mendip Hills, about three miles from the city of Wells. The sana-

torium stands 850 feet above sea-level in grounds which cover an area of 160 acres, thickly planted with pine and larch firs, affording sheltered walks and resting places for the patients. The house itself is now mostly given over to administrative departments, the patients being lodged in detached chalets or shelters.

The furniture throughout is as usual of the simplest description, all blinds, curtains and upholstery being scrupulously debarred, the floors polished, the walls distempered in pure light tints, the bedroom windows of the wide-opening casement variety.

The house itself is lighted throughout by electricity and warmed by hot-water radiators.

The night bungalows, which are detached bungalows facing south, are also electric-lighted, and have electric bell communication with the nurses' quarters.

Combined with the open-air treatment the formaldehyde treatment is carried on with encouraging results.

Inclusive terms range from 2½ to 5 guineas a week.

The sanatorium is under the personal care and supervision of Dr. Muthu, who has from time to time published

records of the cases treated at this institution, the results being to a high degree encouraging to this method of treatment.

NOTES AND NEWS.

FOR some reason which he has not given, Prof. Halstead, of Baltimore, has cabled that he is obliged to withdraw his acceptance of the invitation to deliver the Cavendish Lecture, and accordingly Prof. von Mikulitz, of Breslau, has been invited, and, we are glad to be able to announce, has accepted the invitation. Prof. von Mikulitz is well known as a surgeon, and his address, which is entitled, "Experiments on the Immunisation of Operation Wounds," should be the means of attracting a large attendance. We hope this will be the case, as Prof. von Mikulitz will naturally be put to considerable trouble and expense in coming over here in fulfilment of his engagement. In connection with this subject, we think it a pity (and we know many others are of the same opinion) that it should have been decided to go outside the United Kingdom for a Cavendish lecturer. There are undoubtedly many other men at home who would willingly accept our invitation, and with whom there would be less probability that they would at the last moment fail to fulfil their engagement.

THE Annual Dinner will take place on Wednesday, May 4, at the Trocadero Restaurant, when the testimonial which has been subscribed for Messrs. Dunn and Eccles will be presented. This will give the gathering a special *éclat*, and we hope that a very large number of our members will recognise the invaluable work which Messrs. Dunn and Eccles have done so willingly for the Society, if not by subscribing to the testimonial, at least by giving their support to and attending the occasion of its presentation.

OWING to the fact that Good Friday falls on April 1, the next meeting of the Society, a Clinical Evening, will be held on the following Friday, April 8.

IN our last issue we alluded to the paper of Dr. Jossé Johnson, on "Dr. Otto Schmidt's Treatment of Cancer by Means of Serum Injections," and expressed the hope that experience based on the actual treatment of cancer cases under skilled supervision would soon be forthcoming.

Since November 26, 1903, Dr. Johnson has been afforded facilities of trying Dr. Otto Schmidt's treatment on nine

cancer patients in the Middlesex Hospital, and on November 28 Dr. Schmidt visited the hospital, and expressed himself satisfied with the patients as chosen, with the exception of one.

The cases were treated by Dr. Johnson under the supervision of Messrs. Henry Morris, Andrew Clark, A. Pearce Gould, Drs. W. Pasteur and W. S. Lazarus-Barlow, all members of the Cancer Investigation Committee, and these gentlemen have reported as follows.: "We have failed to observe any trace of a specific local or general reaction to the injections, and we are therefore convinced that the material is entirely without diagnostic value. We have equally failed to see any local or general improvement in the condition of a patient. The injections in no wise alter the course of the disease. In the case of those patients who died, microscopical examination of the tissues failed to reveal any differences in appearance from those usually met with in cases that have not undergone the special treatment." Mr. D'Arcy Power has also given a similar opinion after trying this treatment on some patients under his care.

THE scheme of a proposed Medical Defence Department of the British Medical Association has been issued to the divisions, and the question will shortly become a burning one. In it we see that the Committee propose to invite the existing Defence Societies to sink their individuality and co-operate in this object. If they will do this there can be no doubt that it will be a considerable argument in favour of the scheme. But on the other hand, we have received the following resolution, passed unanimously by the Council of the Medical Defence Union: "That this Council resolves to do all in its power to maintain the integrity of the Medical Defence Union as at present existing." This does not seem as if the present Unions are going to allow themselves to be absorbed. The following seem to be some of the reasons for the action of the Council of the Defence Union:—

First of all, the Medical Defence Union being a company limited by guarantees, cannot amalgamate itself with any other Society or Company unless wound up under the Companies Acts. It is considered that such a winding up of a sound and successful company, doing most valuable work for its members and the profession, would be a waste of the funds of the subscribers and a sacrifice of its members' interests. Winding up is an expensive process. Again, the Union includes numerous practitioners not members of the

British Medical Association, who to regain their protection under that Association would have to become members at a cost of 35s. per annum, instead of 10s. as at present.

It is given as a reason for a Defence Department in the British Medical Association that there would be one Defence Organisation instead of several. This is quite fallacious, as those practitioners who would not join the Association scheme would assuredly form a new company. The most important of all reasons, perhaps, is this, that the work of the Medical Defence Union is of a very special kind, and its practical carrying on is the result of arduous attention on the part of a Council specially elected in a manner to ensure considerable permanency, so that a large proportion of the executive body are practically specialists in the treatment of questions affecting the individual and corporate welfare of medical men. The name of the Medical Defence Union is a terror to blackmailers of the profession, and in so far as its funds have permitted it has fought a good fight against the quackery which so afflicts and flourishes on the public, to the detriment of the profession and of itself. A department of the Association would never wield the same influence, and the Medical Defence Union executive officers believe that in sustaining their Union they are acting in the best interests of the profession and of the British Medical Association itself.

THANKS in great measure to our predecessors in office, the history of the JOURNAL has been one of uniform success and prosperity. Its growth is now such that it has been found necessary to increase the issue commencing with this number to 1,000 copies. Following on this, the Journal Committee have decided to propose a new form of subscription, and accordingly in future, if agreed to by the Council, the charge to non-members will be 1s. per copy, or 3s. 6d. per annum post free. This should meet the views of many of the Post-Graduates who have attended at the West London Hospital, and others living at a distance, who may feel that they would like to keep in touch with the Society, and yet find it impossible to attend any of its meetings.

THE Treasurer desires to remind members that Subscriptions for the current Session became due in October last, and would feel much obliged if those who have not already paid would do so at the earliest opportunity.

THE

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Original Communications.

THE CAVENDISH LECTURE.

EXPERIMENTS ON THE IMMUNISATION AGAINST INFECTION OF OPERATION WOUNDS, ESPECIALLY OF THE PERITONEUM.

By Johann von Mikulicz-Radecki, M.D., LL.D.
Professor of Surgery in the University of Breslau.

Mr. President and Gentlemen,—I feel it a great honour to accept the friendly invitation of your President, and to be allowed to-day to deliver my lecture to your distinguished Society. The pleasure is all the greater because the subject of my lecture rests upon two of the most important discoveries in medicine made during the last century, both of which hail from this country. I refer to vaccination by Edward Jenner, and to the antiseptic treatment of wounds by Joseph Lister. These two discoveries form, as is well known, the initial point from which all efforts start for the combating of infectious diseases of man and animals. The successful treatment of infectious diseases to-day involves, in many cases, a combination of these two methods of treatment.

The function of hygienic measures, based upon Listerian principles, is on the one hand to keep the cause of infection at a distance, or at least to make it harmless, before it can come into contact with the human or animal organism; whilst

on the other hand, that of specific preventive inoculation, is to render individuals more capable of resisting infection. The second principle plays an ever-increasing part to-day in the campaign against epidemics. I need only mention along with vaccination by Jenner, the inoculation against typhoid by Wright, against plague by Haffkin, against diphtheria by Behring and Roux, and a whole series of preventive inoculations for animals.

Surgery has hitherto made but little use of the principle of preventive inoculation. There are, in fact, only two kinds of infections of wounds in which preventive inoculation is in general use to-day; one is inoculation against rabies by Pasteur and the other that against tetanus by Behring. Both inoculations must now be regarded as obligatory in all cases in which suspicion is entertained of infection with either tetanus bacilli, or the virus of rabies. The question therefore arises, why should one not immunise also against the infection of operation wounds with the various pyogenic bacteria? Experiments in this direction have been carried out by various investigators for more than ten years; if until now they have led to results scarcely worthy of mention, it is due to two causes:—

(1) The multitude of varieties of pyogenic micro-organisms which may infect a wound adds greatly to the difficulty of finding a practical method of inoculating against them. It is well known that in the formation of pus in wounds, we have to deal with many species of bacteria of different morphological and biological characters, and to oppose them successfully we must use a combination of different antitoxins. But even if we knew, in a single instance, that only a single kind of bacterium was in question, in the present condition of investigation the prospects of finding a practical antiserum would not be great. As far as the commonest cause of suppuration, namely, *Staphylococcus aureus* and *albus* is concerned, the manifold experiments of Bonome, Viquerat, Terni, Reichel, Capmann, Petersen and others, show that by various methods of treatment of the animal experimented on, a serum may be obtained which will increase the power of resistance against infection with the staphylococcus, but they have not succeeded in obtaining a reliable serum of sufficient potency to be of value in practice. The preparation of a

protective material against the infection of streptococcus is fraught with no meaner difficulties. It is true that Marmorek in the Pasteur Institute succeeded some years ago in producing an antistreptococcic serum which conferred upon animals treated with it a high degree of protection against certain strains of streptococcus; but we know that unfortunately the streptococcus is not an individual, but possesses a large number of strains of different virulence. An antistreptococcic serum is apparently only active against that strain of streptococcus which has been used in its preparation. The polyvalent antistreptococcic serum, also prepared by Marmorek, does not seem to have been of more avail in practice than his original serum. The efficacy of the antistreptococcic serum prepared within the last few years by Aronson in Berlin and by Moser in Vienna is still under discussion, but it seems that it is with the streptococci that there is most hope of production of an effective serum. Similar, and even greater, difficulties present themselves in combating the *Bacterium coli*. This is a point which I shall discuss later on. Whether effective sera have been quite recently found to oppose the rarer forms of suppuration, I do not know. In any case the varied flora of bacteria which cause suppuration on infecting a wound make specific immunisation of wounds a matter of the greatest difficulty.

(2) A second reason why the question of immunisation of wounds has not advanced, is that there is not so great practical necessity as in the case of general infectious diseases. Whilst the general hygienic, and therefore antiseptic, measures are not successful in combating many of the latter, the majority of wounds are efficiently guarded from infection by antiseptic treatment. The result of this treatment of wounds is so certain at the present time, that the graver complications are quite excluded. If, in spite of this, serious disturbances in the healing of wounds occur, it is not due to any error in the principle, but to errors in the technique of carrying out of that principle.

This, however, only applies to those operation wounds in which infection is threatened only from without, whether from our instruments, the sutures and dressings, or from our hands and the skin in the vicinity of the operation, or lastly, from the air as a bearer of infection. The principle of

antiseptics becomes useless as soon as the affected tissues or organs, owing to their physiological properties or their pathological condition, are invaded by pathogenic micro-organisms. Operations and wounds of this order are very common. In a great number of accidental injuries, especially in serious compound fractures, the tissues may be, at the time of the injury, so deeply infected by virulent pathogenic bacteria that antiseptics are unable, with any certainty, to render them harmless. Just as the tetanus bacillus, so may other virulent bacteria remain buried deeply in the tissue and give rise to a septic phlegmon. The possibility of infection occurs during parturition, owing to the separation of the placenta and wounds of the genital canal. In this direction experiments on immunisation have been repeatedly made during the last few years, and here especially have anti-streptococcic sera been used. In lesions of the cranium, too, in which the middle ear or the nose and its sinuses have been put into communication with the subdural space, a similar danger of infection may occur. I will refrain from further enumeration of the manifold wounds in operations of this kind, and confine myself to-day to one province which is beyond antiseptics. I refer to the injuries to, and operations on, the stomach and intestines, along with which I include, since the danger of infection is the same, certain operations on the liver and gall bladder and on the female genital organs.

The problem of effectually disinfecting the mucous membrane of the stomach and intestines, in preparation for operation, has not yet been solved. The normal inhabitants of the stomach and intestines are able to produce peritonitis, but the danger of infection at operations is increased by the fact that, as a rule, we open a diseased part of the intestinal tract, and here, just as in the case of ileus and in chronic stenosis of the bowel, or in ulcerative conditions such as carcinoma, the number and virulence of the bacteria are distinctly raised through stagnation.

We possess, it is true, a number of technical expedients for limiting the danger of infection, but they do not succeed with certainty in preventing it in every case. When possible we draw the part of the intestine or stomach out of the abdomen and operate extraperitoneally after carefully surrounding it with gauze. If the bowel does not permit of being drawn

out, we attempt at least to isolate the parts intraperitoneally, separating the opening into the stomach and bowel from the rest of the peritoneal cavity by carefully packing with aseptic cloths.

Finally, we possess, in the supplementary irrigation of the site of the operation with physiological normal saline, a method of washing away a part at least of the bacteria which hang on to the peritoneum. We naturally attempt to keep the stomach and intestines empty as far as possible, through fasting and other preparation of the patient, and during the operation to prevent the contents of the intestines from gushing out by the adjustment of suitable intestinal clamps. When, in spite of this, we fear a virulent infection of the peritoneum, we make use of a gauze drain ; but it is precisely in operations on the stomach and intestine that this has the greatest disadvantages.

Useful as these methods are, yet they do not remove the possibility of an invasion of the peritoneal cavity by bacteria which inhabit the stomach and intestine. When we remember with what minute care we seek to exclude the relatively harmless bacilli in the skin, or the germs suspended in the air, we must acknowledge that there is a sharp contrast between these methods and the incomplete protection of the peritoneum against the bacteria of the intestine in most of the operations on the stomach and intestines. This is not only true of large openings in the stomach or intestines, but also of small perforations. Hans Buchbinder[1] showed, several years ago, that even out of the smallest perforations of the intestine the bacteria spread with remarkable speed upon the serous surface, and are found not only in the immediately concerned peritoneal areas but also in neighbouring ones.

The number of intestinal bacilli which, in spite of the mechanical methods mentioned above, nevertheless obtain access to the peritoneum is naturally the greater the greater the size of the opening or openings, the deeper in the peritoneal cavity that we have to operate, and the longer the duration of the operation. We can only with absolute certainty prevent the invasion of the peritoneum by the bacteria of the intestine by closely sewing the part of the intestine to be opened to the abdominal wall, and thus totally cutting off the peritoneal cavity (as is ordinarily the case, for instance, in colostomy).

Even in the operations for gastric fistula as suggested by Witzel or Kader, the danger of infection of the peritoneum is not absolutely excluded; at every entero-anastomosis or gastro-enterostomy this danger is incurred, and is especially great in intestinal resection completed at one operation.

The danger of these operations is increased still more by the fact that the stomachic and intestinal tissue is often insufficient in amount on one side or the other, so that the peritoneum may become infected later on during the process of healing.

If everyone developed serious peritonitis from even the slightest invasion of bacteria from the intestine, then practically all the above-mentioned operations would be failures. Luckily the peritoneum possesses, as we have known since the experiments made by Wegner, a very great power of resistance against pathogenic bacteria. But we also know that this resistance has a limit, and that an overwhelming number or too great a virulence of the invading bacteria leads to the various forms of peritonitis. These are further aggravated by the presence of wounds or defects of the peritoneum; it does not then possess its normal power of resistance, and thus becomes an especially favourable nidus for bacterial infection. This occurs in most serious stomachic and intestinal operations. One can show from abundant statistics the gradually increasing danger of post-operative peritonitis, according to the opportunity for the extrusion of bacteria from the stomach and intestine afforded by the extent of the openings into them, the position of the field of operation and the duration of the operation itself.

At the head of the list stands resection of the stomach and resection of the intestines for malignant disease performed at one sitting. The mortality from the former is to-day, even amongst skilled operators, not less than 20 per cent., and greater still in resection of the intestine at one operation. The cause of death in these cases is, as a rule, peritonitis, either alone or combined with other disturbances which, but for the accompanying peritonitis, might perhaps have been survived.

The bad results of resection of the intestine at one operation have induced me to practise as my normal procedure resection in two stages. The favourable results thereby attained

show most excellently the importance of the peritoneal infection induced at the operation at one sitting. The mortality in my clinic in resections has been reduced from over 30 per cent. to 10 per cent., by avoiding the operation completed at one sitting and adopting the two stage method. In resections of the stomach, unfortunately, it is impossible to perform the operation in two stages. In the cases of recovery from resection of the stomach, however, the peritoneum is not untroubled by the swarms of bacteria that have made their way into it. Those who have closely observed patients after serious operations on the stomach and intestines will be able to confirm me in the statement that a large number of successful cases have suffered from peritonitis, the issue of which has often caused anxiety for many days. That most of the cases that recover have at least had limited but intense peritonitis is best demonstrated by the strong adhesions which we find, not only in the immediate neighbourhood, but also occasionally at some distance from the seat of operation when the abdomen is re-opened.

I have asked myself the question, whether it is not possible to still further decrease the mortality due to peritonitis following severe operations on the stomach and intestines, and at least to save a fraction of those cases which we consider hopeless. In operations upon the stomach this would be an absolute gain. In resection of the intestines we could perhaps in this way diminish the indications for the operation in two parts, as this procedure is distinctly disagreeable for the patients. For the cases also that recover it would be an advantage to diminish the intensity of the peritonitis even if we could not absolutely prevent it, and thereby lessen the probability of the formation of strong adhesions. The dangerous peritonitis at serious operations on the stomach and intestines is due to the fact that the bacilli from the intestines, in spite of all precautions, escape in too great a number to be tolerated by the peritoneum; or in other words, the natural power of resistance of the peritoneum in the individuals is not sufficient to overpower the mass of bacteria introduced. As at the present time we possess no method of absolutely preventing the passage of intestinal bacteria during intraabdominal operations on the stomach and intestine, we can only diminish the danger of peritonitis

by increasing the power of resistance of the peritoneum against intestinal bacteria. If we should succeed in finding an efficient method in this direction, it might be used in other abdominal operations which involve a similar danger of infection, in, for instance, operations upon the bile ducts and the female organs of reproduction. It would, moreover, be a way by which the resisting power of other tissues exposed to infection might be increased before operative interference, and also in accidental lesions, such as compound fractures.

Only two theoretically possible ways of increasing the power of resistance of the organism, as well as the several tissues against bacterial infection, occur to us with our present knowledge.

The treatment of the patient with a specific immunising body as above mentioned has been successfully employed for a whole series of infectious diseases—diphtheria, small-pox, plague, cholera, tetanus, rabies, &c. With our modern knowledge, however, of the ætiology of human peritonitis, an immunisation of this kind seems almost as impossible in practice as in the case of the infection of other wounds with the ordinary pyogenic germs. According to experiments of A. Fraenkel, Tavel and Lanz, Ziegler, Flexner, and other observers, septic peritonitis is as a rule due to polyinfection, and this is especially the case in peritonitis due to perforation, to which I assign by far the greater number of cases of post-operative peritonitis. This will readily be understood when one considers that on the oozing out of the contents of the intestine a varied flora of bacteria spreads over the peritoneum.

The chief part is played by the *Streptococcus* and *Bacterium coli*, which in most cases are found together in peritoneal exudation. It is, however, certain that either of these bacteria, and especially *Bacterium coli*, is able to produce peritonitis by monoinfection.

A much rarer cause of disease is the *Staphylococcus pyogenes*, *aureus* and *albus*, and still more rare are the pneumococcus, *Bacillus pyocyaneus*, and other pathogenic bacteria. Since it is only in isolated cases that we recognise, either before or after the outbreak of peritonitis, which bacteria are the cause, it would for this reason alone be impossible to use on each occasion the correct antiserum,

even if we possessed a complete museum of sera. But even in a case of single infection by *Streptococcus* or *Bacterium coli*, the difficulty arises that in both varieties of micro-organisms, as I have already said, there are innumerable kinds or strains, which show great differences in their biological characters and therefore also in their virulence. Tavel and Lanz[2] found twenty different strains of coli-like bacilli among thirty specimens of cases of peritonitis which they investigated. No less important, as I have already pointed out, are the differences between the various strains of streptococci.

Therefore only the second of the two possibilities remains to us, namely, the general increase of the power of resistance to bacterial invasion. One means of effecting this is an artificial hyper-leucocytosis. The idea of increasing the power of resistance of the body against bacterial infection by experimental hyper-leucocytosis is far from new, for even before Metschnikoff's teaching of phagocytosis a number of experimenters had recognised the massing of leucocytes in inflammatory processes as a phenomenon of protection of the tissues and of the whole organism. The teaching of Metschnikoff gave this observation a new interpretation. We will leave it a moot point whether Metschnikoff's school is correct in its original teaching, according to which the bacteria are destroyed by active phagocytosis alone, or whether, as Buchner holds, the leucocytes give rise to alexines which kill the bacteria outside the cell body, or whether, lastly, these two processes work together. In any case leucocytes and general leucocytosis must play a very important part in the struggle against the bacteria which have penetrated the tissues.

How far in the case of natural resistance the increased formation of alexine in the neighbourhood or in distant parts depends upon hyperleucocytosis cannot as yet be definitely stated. Wright and Douglas have recently proved that the blood contains a definite substance (termed by him opsonine), which prepares the bacteria for phagocytosis. It was well known that the injection of the dead cultures of certain bacteria gives rise to a hyperleucocytosis; but they have shown that therapeutic inoculation with these causes an increase in the opsonic power of the blood fluids, so that it is necessary to modify Metschnikoff's original idea and to recog-

nise the part played by the constituents of the plasma. We know also that the local massing of leucocytes and the general leucocytosis run parallel up to a certain point. What relation there is between the local process of defence and the general leucocytosis has been shown by the observations made during the last few years by Curschmann, Wassermann and Federmann, and still more recently by the valuable investigations of A. Reich[3] at v. Bruns' clinic. Of great interest for our question is the recent work of Moszkowicz,[4] although it does not directly treat hyperleucocytosis. Moszkowicz showed that the power of resistance of the whole peritoneum against infection is considerably raised during the course of a perityphlitis. The peritoneum withstands in this condition a mass of infectious material, such as pus, which appears at an early operation, and which with a normal unprepared peritoneum would undoubtedly produce a fatal peritonitis. Evidently in perityphlitis material is formed which, concurrently with the general hyperleucocytosis which usually occurs with perityphlitis, causes also a heaping up of leucocytes in the peritoneum. Nature herself, therefore, shows us here the way to make the peritoneum more resistant to bacterial infection. The local processes which occur in the struggle of the leucocytes against the bacteria, in accordance with Metschnikoff's phagocytosis, I may assume to be well-known. Of special interest to us is the recent work of Carl Kisskalt of the Hygienic Institute of the University of Giessen, for that author has made experiments with, amongst other bacteria, *Staphylococcus pyogenes* and its relation to local leucocytosis. Kisskalt gives us an explanation of the fact that phagocytosis does not take place with highly virulent specific pathogenic bacteria, whilst with bacteria of medium or low virulence a marked action ensues. It is precisely in the case of the exciters of peritonitis that bacteria of this last kind are generally found. Kisskalt found that in every case of bacterial invasion into the tissues there was formed, after so short a time as two hours, around the bacteria a wall of leucocytes which prevented their spreading further. The collection of leucocytes around the bacteria is due, as is well known, to a chemical action of a poison manufactured by the bacteria (so-called chemotaxis). If the throng of bacteria is comparatively small, and if the chemical substances that detach themselves

from them are not of a high degree of virulence, then there is only a stimulating effect upon the leucocytes, they press forward to the bacteria themselves and envelop them: phagocytosis takes place by which the bacteria are destroyed; on the other hand, if the mass of bacteria is over-powering, or if the toxins from the bacteria, as is always the case in specific pathogenic bacteria, are of exceptional virulence, then from the intense poisoning a weakening of the leucocytes ensues, they are destroyed and are of little or no avail as a protection against the process of infection. It is therefore comprehensible why (1) phagocytosis is ineffectual as a method of protection against specific germs of disease which are of exceptional virulence. In these cases only specific protective bodies, such as we have mentioned above, are of use; (2) why the moderately virulent bacteria, such as most of the pyogenic bacilli, can only be successfully fought by the leucocytes by the method of phagocytosis when they are present in small masses. When they are in overwhelming numbers they weaken the leucocytes in the same way as do certain specific pathogenic organisms. On this circumstance is based hyperleucocytosis as a method of protecting against certain definite forms of bacteria, which in moderate numbers can be overcome by the leucocytes, as by artificial hyperleucocytosis we bring into action a great number of leucocytes, and lead to their becoming numerically superior to the bacteria which forms the initial infection. By this means the fight between leucocytes and bacteria may be decided in favour of the former, whilst the leucocytes easily succumb if the organism has not set them into action at the time of infection, but has waited until a time at which the bacteria have increased in number and virulence in the tissues.

As far as I know, Loewy and Richter[5] were the first to try, by the injection of albumoses, especially spermin, into animals, to produce a hyperleucocytosis and thereby to make the animals capable of resisting infection of pneumococci. In a similar way Jakob,[6] by intravenous and subcutaneous injection of albumose into rabbits, made them proof against pneumococci and mouse septicæmia. After each injection a hypoleucocytosis occurred first, and later a hyperleucocytosis. If the infection was brought about during hypoleucocytosis the animals without exception died; on the

other hand, the course of the disease was influenced in the most favourable way when the infection was introduced after a hyperleucocytosis had occurred and was still increasin.

Hahn[7] succeeded in showing that during the stage of hyperleucocytosis the blood of men and dogs possessed a higher bactericidal value than normal blood. Hahn used yeast nuclein in his experiments on dogs and tuberculin in those on man. These experiments do not seem to have led to any practical result in the case of man; at any rate, Goldscheider[8] did not entertain great hopes of the therapeutic value of hyperleucocytosis.[9] More recently Hofbauer in Vienna says he has obtained favourable results in undoubted puerperal septicæmia by the administration of 5-6 grammes of nuclein by the mouth. The slight therapeutic value of artificial hyperleucocytosis in disease which has already made itself evident, as, for example, in pneumonia, can be readily understood. The infected organism is at the time of the application of the remedy overpowered by the pathogenic microbes; all the engines of defence of the organism have already had to be led into the field. A still further increase through a later artificial hyperleucocytosis cannot be expected.

The question arises whether artificial hyperleucocytosis may not be of value in practice as a prophylactic. According to the above-mentioned experiments of Loewy and Richter, of Jakob and Hahn, one cannot exclude the possibility that by an anticipated mobilisation of great masses of leucocytes, the latter may overcome the bacteria, which have obtained entrance in the first instance in relatively small masses, with greater ease than if the leucocytes delay their attack in force until the number and virulence of the bacteria in the tissues has markedly increased.

Whether the observations of Jakob are applicable to the peritoneum had to be established by experiments on animals before they could be used upon man.

Dr. Miyake, of Japan, who recently worked in my clinic, undertook at my suggestion these experiments upon animals. These were carried out in the Breslau Hygienic Institute under the control of Professor Flügge. In this department of work we must note that we already had a predecessor named Salieri,[10] who in 1902 carried out experiments to

increase the resistance of the peritoneum against coli infection. For this object he used small quantities of normal saline and found that he could increase the natural resistance in guinea-pigs by sevenfold to sixteenfold. The experiment was made three times on man in cases of laparotomy in which Salieri injected 30-60 cc. of saline solution into the abdominal cavity. Salieri believed that he obtained favourable results, but in my opinion the operations carried out by him do not definitely demonstrate an increased resistance of the peritoneum. Salieri was led to undertake his investigation by the well-known experiments against cholera, conducted by Issaeff[11] in 1894. Issaeff produced in guinea pigs hyperleucocytosis in the peritoneal transudate by intraperitoneal injections of normal saline, of bouillon, of nucleic acid and of tuberculin. At the summit of this hyperleucocytosis he injected virulent cholera vibrios into the peritoneum and noted, according to the nature of the injected fluid, a more or less marked increase in the resistance of the peritoneum to the injected cholera bacilli. The most powerful reaction was obtained with nucleic acid. With an injection of 1 cc. of a 2 per cent. solution of nucleic acid the peritoneum was able to withstand 13-17 lethal doses of cholera vibrios. Issaeff observed that the destruction of the microbes was carried out by the leucocytes of the peritoneal transudate. After only two hours the phagocytosis was evident. In the third hour free micro-organisms could no longer be found in the exudate, and after five hours the process of destruction of microbes was completed.

Just as Issaeff used guinea pigs for his experiments we too selected that animal. Although the prospects of a satisfactory specific active immunisation of man against the virus of peritonitis, as has been explained, are extremely small, nevertheless we made experiments in this direction first, for in guinea pigs the conditions are much more favourable. The *Bacilli coli* alone are markedly pathogenic for the peritoneum of the guinea-pig, whilst the other co-exciters of peritonitis in man, especially the *Streptococcus* and *Staphylococcus pyogenes*, are almost entirely harmless to guinea pigs. The experiments were carried out in this way. From a strain of coli, a quarter of a loop of which injected peritoneally killed the animal, from half a loopful to two loopfuls of a sterilised culture were in-

jected into the peritoneum. After a definite interval, which was different in different experiments, had elapsed, the animals tolerated the introduction of five loopfuls of living virulent culture and also the escape of the contents of the intestine into the abdominal cavity.

The active immunisation with a strain of coli (derived from man) was thus, we may presume, able to protect against other coli strains that were accidentally present in the contents of the intestine. Nevertheless it is possible to come across by chance strains in the case of which this does not occur. That in man we have to reckon not only with different strains of *Bacilli coli*, but also with different strains of streptococci and other pathogenic bacteria, has been demonstrated above. On these grounds we did not make any further experiments for obtaining a specific active immunisation even of guinea pigs.

The further experiments consisted exclusively in producing a general increase in resistance by hyperleucocytosis. In accordance with the procedure of Issaeff we tried the injection of various fluids into the peritoneal cavity; later on subcutaneous injections were also tried; for this form of application is better adapted to man than that of intraperitoneal injections.

Sodium chloride solution (0·85 per cent.), neutral bouillon, 2 per cent. aleuronate in physiological salt solution, and neucleic acid were used for injection. The first three solutions were only used intraperitoneally, nucleic acid subcutaneously as well. For intraperitoneal injection 2 per cent. of nucleic acid was used, for subcutaneous injection 5 per cent. neutralised nucleic acid solution, 1 cc. of the solution was injected per 250-330 grammes body weight.

We found, in agreement with earlier experimenters, that the intraperitoneal injections of normal saline in the quantities above mentioned gave rise to a marked hyperleucocytosis in the peritoneal transudate. The maximum was reached after from seventeen to eighteen hours, with an increase to about four-fold the normal leucocytosis. Still greater was the effect when the peritoneal cavity was washed out with 50 cc. of normal saline; in this case about two-thirds of the solution was left in the cavity. Maximum hyperleucocytosis occurred after twenty-four hours, and resulted in five times the normal number of leucocytes. The reaction due to neutral bouillon

was much less marked than that of normal saline. But a far more energetic action followed the 2 per cent. aleuronate mucilage. The maximum peritoneal hyperleucocytosis occurred in thirty hours and rose to between seven and eight times the normal number.

A similar result followed the use of nucleic acid, but the reaction was more speedy. The maximum was between seven and eight times the normal and occurred eight hours after the injection. Along with the local, general leucocytosis in the blood took place, but to nothing like the same extent. The maximum in one case was double the normal number of white cells. Subcutaneous injection also of 5 per cent. nucleic acid led to a hyperleucocytosis in the peritoneum as well as in the blood. The latter reached almost to the same height as with the injection into the peritoneum, the former remained far below. It reached approximately two and a half times the normal number. The important point is that here also as in the experiments of Jakob, the injection caused a hypoleucocytosis (leucopænia) in all cases after half to one and a half hours. With normal saline and with bouillon it was not considerable; with aleuronate and nuclein it fell even to one-tenth of its original amount in the peritoneal transudate. No general disturbance of any importance occurred. With the injection of normal saline the temperature was scarcely raised; with aleuronate and nucleic acid there was a rise of from 0·5° C. to 1·5° C. during the first hours after the injection.

After these experiments we used the injection with the above-mentioned fluids as a preliminary to an infection of the peritoneum, and in the first instance a strain of *Bacterium coli* was employed, which we found to be very virulent for guinea pigs. After it had been ascertained by eleven test-experiments that the minimum lethal dose was $\frac{1}{4}$ of a loopful, the prepared animals were infected with the same strain. The infection of the peritoneum followed regularly seven hours after the preparatory treatment, and therefore at a time when the hyperleucocytosis had not yet quite reached the maximum. The result was as follows: The effect of a single injection into the peritonum of 1 cc. of normal saline was relatively weak, the power of resistance being only doubled (the infection after washing out the peritoneum with saline

could not be employed, because the coli strain at the time of the experiments in question had already lost its virulence).

Much more energetic was the action of the intraperitoneal injection of aleuronate since it increased the resistance of the peritoneum eight fold. Nucleic acid was still more active, for with this the power of resistance of the peritoneum was raised to from 16-20 fold.

The subcutaneous injections of 0·5 per cent. neutralised nucleic acid similarly increased the power of resistance of the peritoneum 16-20 fold.*

Distinctly weaker was the action of a 0·25 per cent. solution. The effect of repeated intraperitoneal injections of nucleic acid was considerably stronger. In this manner the resistance of the peritoneum could be raised to forty times the normal. Repeated subcutaneous injections of nucleic acid led to thirty-two times the normal resistance.

I may note in passing that none of the fluids used for injections in the neutralised form had any bactericidal action upon the *Bacterium coli* selected for injection.

It would have been very desirable to carry out the same series of experiments against the other bacteria that collaborate in the production of peritonitis in man, and above all against *Streptococcus* and *Staphylococcus aureus* and *albus*. Unfortunately we found, in agreement with other observers, that the streptococci and staphylococci isolated from patients in our clinic were non-virulent for guinea pigs. We therefore tried experiments upon rabbits, but the same difficulty arose. It is not easy to find a strain of staphylococci which has a pathogenic effect on the peritoneum of the rabbit. We can definitely assume from the previously mentioned experiments of Kisskalt, that in combating the *Staphylococcus pyogenes*, both leucocytosis and the destruction of the bacteria by the method of phagocytosis play at least as important a part as when the fight is between the organism and the *Bacterium coli*.

As far as the streptococcus is concerned, the strains isolated from our clinic were insufficiently virulent for the peritoneum of the rabbit. One of the strains of streptococcus given us by

* In the course of the experiments the lethal dose was once more determined, after an interval of twenty-seven days, and found to be half a loopful.

Dr. Aronson of Berlin was, it is true, virulent for rabbits, but to such a great extent that it acted as a specific bacterium of these animals. Against these highly virulent specific bacteria, little effect is, as we already know, produced by a general increase of resistance by hyperleucocytosis. In these cases only a specific immunisation is of avail against infection. For these reasons the experiments could not be carried out in the way referred to.

On the other hand, the experiments upon coli were supplemented in a most satisfactory manner by a series of observations which simulated the natural conditions occurring in peritonitis due to perforation. The experiments consisted in performing a laparotomy and forcing through an opening in the stomach or intestine as much of their contents as could be obtained from the immediate neighbourhood of the incision. Of five control animals which had not been previously prepared, four died from peritonitis between five and sixteen hours after the operation. The fifth became extremely ill but finally recovered, but the amount of intestinal contents which was transferred to the peritoneum was much less in this case than in the others.

Ten animals were prepared. These recovered without exception. Three of them received single intraperitoneal injections of nucleic acid, two of them injections of sterilised bacteria coli, three of them repeated injections of nucleic acid into the peritoneum, and two of them subcutaneous injections of neutralised nucleic acid. In each case laparotomy was performed seven hours after the injection.

These experiments are such as to excite our interest in the highest degree, for by subcutaneous injections of nucleic acid it was possible to raise the resistance of the peritoneum to such an extent that even a considerable quantity of intestinal contents could be placed in the peritoneal cavity without causing damage, whilst without previous treatment an acute, rapidly fatal, peritonitis followed almost without exception. This opens out a new field for the surgeon in preventing post-operative peritonitis.

On three more animals a therapeutic experiment with neutralised 2 per cent. nucleic acid was tried. This solution was injected subcutaneously some time after the infection of the peritoneum with coli bacilli. It was found that, when

the infection had preceded the injection by six hours the peritoneum was able to stand only four times the lethal dose; whilst, if the infection had taken place only an hour and a half before, then the animal was able to withstand eight times the lethal dose. One animal, which received twelve times the fatal dose along with the nucleic injection, succumbed nineteen hours after the infection. It therefore follows that subcutaneous injection of nucleic acid, if not used at too great an interval after the peritoneal infection, possesses a definite therapeutic value. This observation may perhaps be of value in acute cases of peritonitis from perforation. These results are of special interest, since we should have expected the hypoleucocytosis following the injection of the nucleic acid to lower the resistance of the organism, and therefore we are forced to the conclusion that other factors are at work as well as phagocytosis.

We have in several cases studied in detail the process of phagocytosis in the peritoneal exudate after the infection with coli. In two of these cases we employed preventive injections of nucleic acid into the peritoneum, and in the others we used the drug subcutaneously. In all cases an extremely active phagocytosis made itself evident half an hour after the infection. The number of microbes (in subcutaneous injection of nucleic acid) after half an hour was one-third, after one hour one-sixth, after three hours one-eighteenth, after four hours one-one-hundred-and-eighth, of the original number, whilst in the control animals the number of bacteria steadily increased. After twenty hours the exudate was sterile. The coli bacilli which still remained at the end of each interval of time proved on examination to be virulent in every case. The action of the leucocyte could be very prettily watched in a microscopic preparation.

I felt justified, after these promising experiments upon animals, in beginning similar experiments, safeguarded by every precaution, upon man. The neutralised nucleic acid* seemed to be the most suitable of the re-agents which had been tried in the experiments upon animals. We first tried a ½ per cent. solution, and gradually increased the strength up to 4 per cent. As a rule 50 c.c. of the solution were injected

* The preparation we used was supplied by Böringer of Mannheim.

subcutaneously. The injection was made under the skin of the chest in all cases except four; in these the upper part of the thigh was selected, but owing to the inconvenient local pain this part of the body was not afterwards used. Intra-peritoneal injection was tried in one case, and that the very first, but this method was entirely relinquished owing to its difficulty and the trouble it gave the patient.

The 4 per cent. solution was injected twice. We altered this concentration because of the unpleasant general symptoms that were produced, for on both occasions it caused malaise, and on one occasion sickness.* There did not appear to be any reason, judging from the experiments on animals, for using so concentrated a solution. Thenceforth we always used the 2 per cent. solution, so that an adult man received about 1 gramme of nucleic acid to 75 kilogrammes of body weight, the same proportion approximately as we had tried in experiments upon animals.

Fifty-eight cases in all were treated in this way between January 7 and the end of May. In 55 cases the operations were upon the stomach, intestine, or other abdominal viscera, and in 3 cases for extra-abdominal disease. In 4 cases the operations had, for some extraneous reasons, to be postponed, so that they did not take place until more than thirty-four hours after the injection was given. We have thus, on four occasions, had the opportunity of observing the effect of the injection by itself. This was the more welcome to us because we have learnt from investigations made by others that every operation, or even a simple anæsthesia, may give rise to a hyperleucocytosis, and therefore does not permit of observing whether the reaction due to the injection of nucleic acid was satisfactory.† This circumstance, and also the small number of our clinical observations, prevent us from giving definite answers to a number of questions on points about which we should like to have exact knowledge in reference to the working of this process in man. The following are the statements which I am now able to make. After the sub-

* The 2 per cent. solution was injected in 56 cases, and caused discomfort and sickness on only two occasions.

† A leucocytosis of 25,000 has been observed after amputation of the breast, of 30,000 after exploratory laparotomy, of 40,000 after the radical operation of congenital hernia, and 50,000 after operation for a large scrotal hernia.

cutaneous injection of neutralised nucleic acid, we have constantly observed, just as in animals, so also in man, a hyperleucocytosis in the blood, which was almost always preceded, during the first hour or so, by a hypoleucocytosis. The question how high a degree of hyperleucocytosis was obtained through the injection is difficult to answer on the basis of our observations. To the earlier difficulties already referred to, yet another must be added. Many of the patients showed a well-marked hyperleucocytosis even before the injection; for instance, in most cases of carcinoma of the stomach, and in a few cases of cholelithiasis. It is clear that in these cases the relative increase of leucocytes cannot be so marked as in those cases where the number of leucocytes was normal. The highest value was 31,000, the lowest 6,100. Expressed in percentage with reference to the original number of leucocytes, the increase of leucocytes in the blood varied from 9 to 452 per cent.

In most cases we could not say whether the leucocytosis, due to the injection of the nucleic acid, had reached its maximum before the operation, for after the operation one could not with certainty assign a further rise to the nucleic acid. It is my opinion that when only a slight increase was observed before the operation, the hyperleucocytosis occurring later was due to the injection and not to the operation. We must admit this possibility because of the fact that in the case of the four who were not operated upon during the first thirty-four hours, the maximum leucocytosis was on one occasion observed twenty-four hours after the injection. For the afore-mentioned reasons we are not in a position to make any definite statements as to the beginning of the most favourable phase of hyperleucocytosis, because the operation was, in the great majority of cases, apparently performed before the commencement of this phase. Only in five cases was there a distinct fall in the hyperleucocytosis before the operation; it occurred between thirteen and nineteen hours after the injection. The operations were performed in four cases from five to six hours, in twelve cases from nine to twelve hours, in thirty-eight cases from thirteen to nineteen hours after the injections. The experiments on guinea-pigs showed that the optimum for nucleic acid was reached seven hours after the injection. It seems

to occur in man considerably later. We have therefore recently fixed the interval between preventive injection and operation at twelve hours. We believe that we thus, as a rule, follow out the instruction to operate on the rising tide of leucocytosis.

As regards the phenomena accompanying the injection of nucleic acid, no serious local or general symptoms have as yet come under our observation. Even in the two cases in which a .4 per cent. solution had been injected, the sensation of giddiness lasted but a short time. The most unpleasant factor for the patient is the local reaction. A tenderness and slight swelling around the point of injection remains as a rule throughout the day. An intense erysipelas-like redness in two cases was seen, and it disappeared without leaving any trace after twenty-four hours.

The only sign of reaction which appears with regularity is a slight increase in the temperature, which may be observed during the first few hours after injection (99° F. to 100° F.). In five cases the temperature remained below 98·6° F., in twenty-seven cases it rose to 100° F., in six cases to 101, in three cases to 102, and in three cases above 102° F. The rise in temperature was only in six cases accompanied by slight rigor, and even this was of short duration.

The urine showed no pathological constituents after the injection, and the patient's general condition was not in any other way impaired. Even the patients whose temperatures had risen suffered no discomfort thereby, and maintained good appetites.

You will now ask me, gentlemen, how far the immediate object of the injection of nucleic acid was attained, and how far the preparation of the cases had a favourable effect upon the course of the operation. The number of my experiments is not sufficient to permit me to form a definite judgment upon these points and give an unguarded reply.

We cannot in the case of man, as we do in that of the lower animals, when introducing infective material into the abdominal cavity give a certain multiple of the minimum lethal dose in order to see how far a preventive treatment has succeeded. We set all our apparatus in action, in spite of preventive inoculation, to reduce infection to the minimum. Since these means fortunately succeed in the majority of cases,

even without preventive inoculation, in guarding the patients from a fatal peritonitis, a small number of satisfactory results do not prove much, but on the other hand one or two unsatisfactory results most certainly cannot condemn the method; for this method gives no absolute certainty like a specific immunisation, but only increases the natural immunity, and this may under certain circumstances, even when increased to thirtyfold, nevertheless be insufficient. I have, however, the impression that the cases hitherto treated have given more favourable results not only in the number of cases that recovered but also in the progress of the individual cases, than the analogous cases of earlier date when the operations were performed without this preparation.

In ten cases of resection of the stomach for carcinoma nine recovered, six of them without the slightest complication. The progress was marked by a smoothness that was quite exceptional before this treatment was adopted. Two cases which presented exceptional difficulty in the removal of the carcinoma did undoubtedly within twenty-four hours develop peritonitis with pulses up to 160, which according to our usual experience foretold the most dismal prognosis. The patients fortunately survived this peritonitis. In the ninth case which recovered, the progress was disturbed from the fourth day by broncho-pneumonia. The tenth case died; after seven days of uninterrupted progress he developed pneumonia, to which he succumbed three weeks after the operation.

Of the remaining operations I should like to refer first to twenty-two cases of gastro-enterostomy and entero-anastomosis, twelve of which were for carcinoma. Of these cases nineteen recovered and three died. In all three cases death was most certainly not due to post-operative peritonitis, but in one case to perforation of an ulcerated carcinoma of the stomach two weeks after the operation, in another case to continued hæmorrhage from a carcinoma of the stomach sixteen days after the operation, and in the third to peritonitis arising from the perforation of a tuberculous ulcer in the intestine four weeks after operation.

Of six cases of resection of the intestines at one operation, four recovered and two died. In one case death occurred from collapse on the second day after a very prolonged opera-

tion of double resection for carcinoma; in the other case, where the injury was a bullet wound, death took place on the tenth day from hæmorrhage from the vena cava. In neither of the cases was there any peritonitis. One case of opening the stomach and stretching the cardiac orifice, performed on account of spasm, recovered. So also did six cases of operation on the bile duct, seven other operations upon abdominal organs without opening the intestinal tract, and three extra-abdominal operations. The last to be mentioned are two cases of nephrectomy which were treated with nucleic acid before the operation. In both cases, owing to extensive inflammatory masses and adhesions, it was necessary to widely open the peritoneum in order to remove the suppurating kidney. One case recovered, the other died twelve days after the operation of hæmorrhage from the renal artery. In this case, too, there was no peritonitis.

We therefore have forty-seven laparotomies in which the abdominal cavity was exposed to infection by the contents of the stomach or intestines or by some other infectious secretion. Forty of these cases recovered, and in none of the seven fatal results was post-operative peritonitis the cause of death.

While relating my clinical experiences I have referred to nucleic acid only as a method of producing leucocytosis, but we have also used in most cases, and especially in severe operations upon the stomach and intestines, a second means, which, according to experimental observations, is able to increase considerably the power of resistance of the peritoneum: I mean the intraperitoneal infusion of normal saline. Departing from my earlier practice, I have used more and more during the last two years free irrigation of the peritoneal cavity with warm normal saline in all laparotomies in which the peritoneum runs some risk of infection.

I do not use, as Salieri does, the almost homœopathic doses of 60 cc., but the peritoneum is washed out with many quarts of warm solution. This is carried out in the following way.

A rubber tube about the thickness of the finger is introduced into the peritoneal cavity in various directions, a large glass funnel is fixed to its outer end, and the fluid under low pressure (20 to 30 cm. of water) is poured in through this.

Care is taken, by holding open the edges of the wound, that the fluid may be able to flow out again easily beside the rubber tube. A portion of the salt solution is always allowed to remain in the peritoneal cavity at the end of the operation. I believe that this method is practised by other surgeons also in serious laparotomies, but I do not know whether the great advantages of the method are fully recognised by them. I wish to recommend it to those who do not use it at all, or not to an adequate extent, and the more so because I myself was formerly an advocate for dry methods of operation in the abdominal cavity.

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CHRONIC PANCREATITIS.

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THE subject of chronic pancreatitis is one which I think must be of considerable interest both to physician and surgeon, the more especially so since there is great difficulty in diagnosis; indeed, much of our knowledge of the disease has been gained from its accidental detection during exploratory operations.

There is a very close connection between pancreatitis and diseases of the gall ducts, especially gall stones, and you will perhaps excuse me if I draw your attention to the anatomical relations between the bile and pancreatic ducts. The normal course is for the pancreatic duct to join with the common bile duct at its opening into the duodenum

forming the ampulla of Vater. In a certain proportion of cases, however, the two ducts enter by separate openings. In such a case, naturally, there would be no risk of pancreatitis being caused by mischief in the bile duct. Again, the pancreas has normally two ducts, the duct of Wirsung (the principal one) and the duct of Santorini. In the greater number of cases the duct of Santorini terminates in the duct of Wirsung, but in about 10 per cent. of all cases the duct is continued on to the duodenum and opens by a separate opening; in such a case again, blockage of the ampulla of Vater would not cause pancreatitis. These points explain why pancreatitis is not constant in cases of gall stones impacted in the lower part of the common duct.

According to Opie two types of chronic pancreatitis can be described: (1) The interlobular variety, where there is cell infiltration and later, deposition of fibrous tissue between the lobules and the interlobular tissue, but the islands of Langerhans are unaffected except in the latest stage. (2) Interacinar pancreatitis, where there is cell infiltration and fibrous tissue formed within the lobules and inside the islands of Langerhans. It is less common and is accompanied by glycosuria, but is not commonly associated with duct obstruction.

The first type is the one met with in association with obstruction of the pancreatic duct either by pancreatic calculi, biliary calculi impacted in the diverticulum of Vater, cancer of the bile papilla, or stenosis of the opening by inflammatory changes, either originating in the bile duct (cholangitis) or in the duodenum. Of course in the cases of special opening of the duct of Santorini we could not get chronic pancreatitis from obstruction of the diverticulum of Vater.

To understand the way in which this disease arises in connection with gall stones, we must remember that in all cases of impacted gall stones there is a considerable amount of cholangitis (or inflammation of the bile duct) set up, and as there is a free communication between the bile and pancreatic ducts, it is natural that the inflammation should spread to the pancreatic duct, and when there is no outlet for the inflammatory products, since the pancreatic duct is blocked by a calculus in the diverticulum of Vater, the substance of the

pancreas will also partake in the inflammatory changes, and interstitial pancreatitis is produced.

The inflammatory process in the duct produces a proliferation of the epithelium lining the duct and acini, together with exudation of leucocytes, so producing a purulent fluid which in some cases can be squeezed out of the duct at a *post mortem*. At the same time there is active cell infiltration of the tissues about the duct and acini, and this will give rise to swelling of the organ. If the changes have advanced to a great extent they will result in cirrhosis and give rise to a condition of the pancreas which may be easily mistaken for malignant disease. Further symptoms will develop by pressure on the bile duct, even though the original cause of the obstruction has passed off. On the other hand the pancreatitis may lead to formation of abscesses with secondary suppuration of the lymphatic glands. And lastly, the chronic pancreatitis may entirely subside and complete resolution may occur. This is not usual without surgical interference. Robson has noticed that in practically all cases of chronic pancreatitis there have been numerous adhesions between the duodenum, liver and colon, and that the foramen of Winslow has several times been occluded.

Symptoms.—These naturally resemble the slighter cases of sub-acute pancreatitis. The onset is usually gradual, but it may commence with an acute attack of pain in the epigastrium, followed by jaundice, and resembling a gall stone attack. The paroxysms of pain are repeated rather irregularly, but jaundice, when it occurs, tends to become more intense and to be permanent. The pain complained of is not like that produced by gall stones, since it is felt in the epigastric region and behind the left scapula, whereas gall-stone pain is situated below the right scapula. Then again in gall stones there is a tender spot just below the tip of the eighth rib on the right side, whereas in pancreatitis the tender spot is just above the umbilicus. There is always loss of flesh and strength, and in some cases vomiting is very troublesome, and is associated with flatulence and dyspepsia. With regard to the bowels, there is often diarrhœa, the stools are offensive, and free fat is found in them; they are also colourless even when there is no obstructive jaundice. A trace of albumen is often found in the urine, and in long-standing cases sugar

may also be present, but as the head of the pancreas is usually affected, and the islands of Langerhans are more marked in the tail, it is not usual. In the later stage of cases associated with jaundice there may be hæmorrhage from other mucous membranes. In most cases a distended gall bladder can be felt, and as Robson has pointed out, this is not tender, as is always the case when gall stones are present. In many cases also the gall bladder may be distended with mucus and not with bile, the backward pressure preventing the secretion of bile. The course of these cases is progressive emaciation and weakness, and in some cases a hectic temperature will hasten the end. If no operation is undertaken the condition is almost certain to be fatal.

Diagnosis.—The diagnosis has to be made from gall stones, cancer of head of pancreas, cancer of liver and ducts, and cancer of the stomach. The diagnosis of the condition from gall stones is not very important, and of course the two often co-exist. However, in gall stones the pain is usually referred to behind the right shoulder, and there is tenderness just below the right costal arch, whereas in acute chronic pancreatitis the acute pain is in the centre of the back and radiates to the left shoulder blade; the tender place, too, is in the middle line just above the umbilicus, and occasionally an enlarged gland can be felt under an anæsthetic. It is to be noted that a painless tumour in the region of the gall bladder is common in cases of pancreatitis, and it is much more frequently present than in cases of gall stones.

In cancer of the head of the pancreas, the symptoms are much more insidious, and the pain in the early stages is less; there is general failure of health, and jaundice supervenes quickly and is severe and persistent. There is extremely rapid wasting, anæmia and loss of strength; there is usually no fever, but a feeble pulse.

Little need be said about cancer of the bile duct, since the symptoms resemble gall stones, with the addition of rapid emaciation and anæmia, and in cancer of the liver an enlarged and nodular liver can be felt. The presence of ascites is also one factor in considering the case to be malignant.

Prognosis is bad if no operation is undertaken, but if the gall bladder be drained a considerable number of cases are completely cured.

Treatment.—In most cases the diagnosis will not have been made before an exploratory operation has been undertaken, but if a diagnosis is made, the treatment would be to perform laparotomy. Some difference of opinion exists as to the next procedure; since many surgeons have reported cures after mere palpation of the pancreas, while others, amongst whom is Mayo Robson, advise that the gall bladder should be drained in all cases. The rationale of treatment by mere palpation of the pancreas must be explained by the pressure forcing out some minute calculus or inspissated secretion out of the duct. The drainage of the gall bladder, on the other hand, acts (1) by curing any cholecystitis or cholangitis present, and (2) taking off the pressure of the bile in the common duct, which, of itself, acts as an obstruction to any flow out of the pancreatic duct. Needless to say that, if any stone be found in the common bile duct, or in the ampulla of Vater, it should be removed.

The following cases of chronic pancreatitis have been under my care, and I should like to briefly record them.

The first case was a lady, aged 30, who was brought to me from India on July 30, 1902. The history of her illness dated from the birth of her last child, which was in January, 1902. She did well till February 20, although she had a rise of temperature owing to some septic trouble in the vagina. On the latter date she had a severe attack of abdominal pain, which doubled her up and made her feel sick. The pain was specially severe in the right side, and there was vomiting for five days. Castor oil was given every morning, and the motions were very offensive. The pain had nearly left her by March 10, when a lump was noticed in the region of the gall bladder. In April she had another attack of pain, and acute paroxysms two or three times a day, which were relieved by rubbing and fomentations. Gall stones were found in the motions, from three to eight each day. The pain was so severe that morphia had to be given. She got gradually better, and had no attacks between June 8 and July 23, then had another attack. The patient was very emaciated, and was afraid to take any food. There was no swelling in the region of the gall bladder, but there was tenderness in that part. The case was supposed to be one of gall stones, and on August 1 I opened the abdomen by an incision just to the right of the

middle line by separating the fibres of the right rectus muscle; the gall bladder and duct were carefully explored, but found to be empty. The head of the pancreas was then examined and found to be very hard. It was freely manipulated by myself and by Mr. A. Baldwin, who was assisting me, and the question of a cholecystotomy discussed, but as there seemed to be no distension of the gall bladder this was not done, and the abdomen was closed.

The patient made an uninterrupted recovery, and began to put on flesh. At the time of her return to India she was quite convalescent, and had not suffered from any further pain.

The second case was that of a lady, aged 55, whom I saw in consultation with Dr. Bromet, of Redhill, on April 28, 1903. She had always enjoyed good health, with the exception of an attack of hepatic colic sixteen years ago, when she passed a gall stone. On April 25 she was seized with severe pain in the stomach, and writhed in agony. Morphia was given, but did not completely relieve the pain, which returned with equal severity on the next two days, and required morphia injection. On the 28th it commenced at about 11 a.m., and continued all day in spite of morphia. There was no jaundice but slight icterus of the conjunctivæ. The gall bladder could not be felt, but there was tenderness in its region. The bowels had acted but no gall stones had been found. The pain was so great that an operation was proposed by Dr. Bromet. The abdomen was opened at the outer edge of the right rectus, and the gall bladder and ducts examined. There were some omental adhesions to the gall bladder, which were divided. The gall bladder contained bile, but there was no gall stone nor thickening anywhere in the ducts. The head of the pancreas felt distinctly hard, but there was no stone to be felt in the pancreatic duct, or in the ampulla of Vater. The case was diagnosed as subacute pancreatitis following old gall stones, and the gall bladder was opened and stitched to the parietal peritoneum, a drainage tube being sewn into the wound. The drainage tube was kept in for ten days and then withdrawn; after this the amount of bile decreased rapidly, and the wound was healed within three weeks. The patient never had any pain after the operation, and made a perfect recovery.

CASE 3. A lady, aged 61, who was under the care of Dr. Hall, of Watford, who had enjoyed good health until the beginning of the year 1898, when she began to have severe attacks of supposed gall stone colic. These were followed by jaundice. At Easter she began to have an elevation of temperature, and in my absence Mr. Swinford Edwards saw her and advised an operation. He exposed the gall bladder, which he found to be distended with mucus, but on passing a probe down the cystic duct some pus escaped. No calculus was discovered. The gall bladder was then stitched to the wound and drained. Bile flowed freely from the gall bladder on the following day and continued ever since. The patient estimated that she passed about one quart a day. Her pain was relieved but she became emaciated, and about the middle of December, 1898, she first noticed a lump just internal to the scar. I was asked to see her on January 5, 1899; I found a lump the size of a small tangerine orange, which was not particularly tender, but had some large pulsating vessels over it. A probe was passed five inches into the wound without entering the lump. The diagnosis was a cystic and calculus condition of the common bile duct, and an operation was recommended. I saw her again in February, and found little change, except that the tumour was a little more prominent and the patient was not so strong, and did not take food. Vomiting was a very marked symptom. The general condition of the patient soon led me to consider that we had to deal with a malignant disease, and I still recommended a further operation, which, however, was not agreed to. She gradually got more emaciated, and died of exhaustion in April, 1899.

Comparing this case with others, I have little doubt that this case was one of chronic pancreatitis due to a gall stone which was impacted in the diverticulum of Vater. The symptoms were relieved for about nine months by draining the gall bladder, but returned when some inflammatory trouble was set up in the common duct, and I am inclined to think that the tumour felt was the head of the pancreas.

CASE 4 was a lady, aged 50, whom I saw with Dr. Burgess of Harlesden on August 24, 1899. For the previous ten weeks she had been losing flesh and felt ill. Seven weeks before she suddenly became jaundiced and had remained so

ever since. She had lost two stone in weight; there was no indigestion, but she felt weak. The abdomen was not distended; there was a well marked tumour in the region of the gall bladder; there was some dilatation of the stomach, and well marked splashing sounds were heard. The jaundice was very marked, the stools were colourless, and there was bile in the urine. On August 28 the patient was put under an anæsthetic and the abdomen opened in the right linea semilunaris. The gall bladder was found to be free from adhesions and to be nearly completely covered by the liver. It was brought into the wound and opened, and about ʒx. of nearly clear mucus escaped. There were no gall stones. The hepatic and common bile ducts were carefully examined, but no stones were discovered. There was no evidence of growth in the pancreas or in the stomach. The gall bladder was stitched to the peritoneum and a tube inserted. During the night following the operation there was a copious discharge of bile in the dressings, and this continued afterwards. The jaundice decreased, and the patient improved in health. In October the patient began to get weaker, and a swelling was discovered at the side of the incision in the situation of the head of the pancreas. This was diagnosed as malignant and no further operation advised. The escape of bile continued and the patient got gradually weaker, and died on December 19. On making a *post mortem* all the organs were healthy with the exception of the pancreas, which was hard and infiltrated. No gall stones were found.

This case very closely resembled the previous one, both as to the absence of the tumour of the pancreas at the time of the laparotomy, and also as to its detection some time after the operation. It is a little difficult to know how far the death was hastened by the continuous discharge of bile; of course, had I not made the diagnosis of malignancy I should have urged another operation to make an anastomoses between the gall bladder and intestine.

LESSONS FROM A YEAR'S FATALITIES.

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Mr. President and Gentlemen,—It is good for us from time to time to review our non-successes. They make us more humble, they teach us lessons, and they incite us to do better, if possible, in the future.

I therefore venture to place before you the complete series of fatalities which occurred in my practice, both in hospital and in private, during the past year. I shall purposely avoid mentioning any names, though some may recognise certain cases.

I think on the whole that I must have been somewhat fortunate, for the number of fatal cases is not large, being nineteen in all. It would serve no useful purpose so far as I can see to state, even if I were able to do so, what percentage this number is of all the cases that have been under my care during the twelve months. It is not my intention to go into details of all these nineteen cases, for I should weary you thereby, but I will endeavour to state certain facts which they have taught me, and which may be of interest to you.

In grouping the cases the first point which is apparent is that I did not have a single fatality from any disease of, or accident to, any of the extremities, every one of the nineteen deaths being due to lesions of the head or trunk. This fact, I think, indicates the greater danger of lesions of the head, neck and trunk, which is only natural, seeing that these contain the vital organs. It further illustrates one of the advances of modern surgery, namely, that operations upon the extremities are fraught with but little danger when sepsis is excluded, for my successful cases included many amputations, excisions, operations upon bones, nerves, &c., some of which would have certainly swelled the death rate fifty years ago.

A closer scrutiny reveals the fact that of the nineteen cases no less than fourteen were abdominal. To a great extent this large proportion may be due to the circumstance that abdominal cases tend to come to myself in some considerable

number, but I do not think that this is by any means the sole reason. The significance of the point is that abdominal lesions are still far too frequently fatal, and a lesson has to be learnt therefrom which will be apparent later.

The five deaths which were not caused by lesions of the lower half of the trunk were two of them dependent upon fractures, one upon a spinal cord injury, and the remaining two upon carcinoma of the mammary gland.

Fracture of the Base of the Skull.

The first case was one of fracture of the base of the skull. A girl, a telephone operator, was practising the sliding down a fire escape shoot from the window of the high exchange in which her employment lay. The heel of her boot ripped the canvas, and she fell forty feet on to the back of her head. On admission there were typical signs of intracranial mischief, but operative measures were out of the question. So far as this case is concerned the chief point of interest was in the temperature, and the lesson to be learnt from it is that a change in the range of the temperature may be a very important factor in prognosis, and possibly also of diagnosis. When first taken in the axillæ about one hour after the occurrence of the accident, the temperature was barely 97° F. This indicated the fall of temperature due to the injury. In such cases records should be taken every hour and in both axillæ simultaneously, as well as in the rectum or vagina.

A steady rise is a most grave sign. In this case death occurred eight and a half hours after the injury, and the mercury had in that space risen through seven degrees, reaching 104° F. just before death, and advancing nearly another degree within thirty minutes after decease. There was in this case no difference of temperature on the two sides of the body.

On *post-mortem* examination there was found to be an extensive fracture of the posterior fossa of the base of the skull, together with a considerable subdural hæmorrhage.

I have had several cases of a similar nature under my care, one of the most interesting of which provided a temperature which rose eleven degrees, from 96° F. to 107° F. before death, some twenty hours after the injury.

I believe that no case with a continuous rise of temperature,

so that within a few hours of the lesion it has rushed up some five or six degrees, is ever likely to recover, and the temperature thus becomes an important sign in regard to prognosis. Further, such rapid rise of temperature usually indicates that the lesion is one of subdural hæmorrhage, and often of laceration of the cerebral substance.

In some instances it is found that the temperature differs on the two sides of the body in such cases. As a rule the higher temperature will be found on the same side as the lesion, if this is unilateral, that is, opposite to the paralysis, if there is any. This point may be of some help in determining upon which side an operation should be performed (I have elsewhere dealt with the subject of temperature in relation to head injuries.—*St. Bartholomew's Hospital Reports*, vol. xxix. (1893), page 225.

Fracture of the Ribs, with Laceration of the Heart Wall.

My second case is one of extreme interest. An office boy, aged 14, was crushed between two vans, the chest being apparently caught antero-posteriorly.

On admission he was extremely collapsed, livid, with very laboured respiration, and much frothing of mucus in the larynx and mouth. On the front of the chest wall there was an obvious depression over the fourth, fifth and sixth left rib cartilages, from their junction with the side of the sternum to about three inches externally. Over this area the heart sounds could be heard but very feebly. A grave prognosis was given. The next day, however, the boy was improved in every way. Now for the first time a friction sound could be heard over the cardiac area. He continued to improve, but was kept quiet in bed on account of the injury having been in close proximity to the heart. Exactly sixteen days after the injury he was sitting up in bed eating his tea when he suddenly fell back dead. On *post-mortem* examination there was found to be fracture of the left fourth, fifth and sixth ribs quite close to their costal cartilages. The left pleural cavity appeared normal. The pericardium was greatly distended with recent blood. There was no evidence of any injury to it on its outer aspect. The left ventricle on its anterior surface, in a position immediately beneath the fractured fifth rib,

exhibited a bulging and perforation. The ventricular wall about the bulging was distinctly thinned.

From this it was clear that there had been an injury, and probably a partial laceration of the anterior wall of the left ventricle, that this wall had gradually dilated and then ruptured, causing a fatal issue.

Two lessons are to be learnt from the case. First, that very grave injury may be done to the heart without killing the sufferer directly, and secondly, that in all such cases it is of the greatest importance that absolute rest should be enjoined for a prolonged period. I do not think that it would have been possible to have saved the boy's life by surgical interference at the early stage of the mischief.

Hæmorrhage into the Mid-dorsal Spinal Cord.

Injury to the cord without fracture or dislocation of the spine is a well-recognised lesion, though not very frequently met with. A man, aged 31, was thrown from a cart and fell backwards upon his shoulders. He lost consciousness until the following morning. There was complete paralysis of motion and sensation of both the lower limbs, and some paresis of the left arm, together with nearly complete anæsthesia in the limb. Reflexes were abolished in the legs, and he had retention of urine and fæces, necessitating the urine to be drawn off by catheter. A fortnight after admission there was some little return of sensation in the left lower extremity. Ten days later he had a rigor, which was repeated the next two days. About the same time an ulcer appeared in the sacral region. He then improved for a while, but seventeen days later his breathing became very laboured and he died.

On *post-mortem* examination no fracture of the spine could be found, and the spinal cord was intact. There was, however, an area of softening in the mid-dorsal region involving the whole thickness of the cord through a length of about an inch, with signs of hæmorrhage into its substance. The bladder was hypertrophied, and its mucous membrane showed inflammatory changes. The kidneys were large, and acutely inflamed, with changes indicative of advanced suppurative pyelonephritis. Why do such patients die? Is their death due to the actual lesion of the spinal cord, which cannot be dealt with, or is it occasioned by preventable causes? Sepsis

killed this patient. Is it possible to exclude it? The greatest care was taken in this instance to perform the catheterisation aseptically, though those who have attempted to do so for a long space of time know too well the difficulties of so doing. Yet in spite of this, cystitis and its consequent pyelonephritis supervened and carried off the patient. I am afraid that we are bound to admit that the bladder was infected *per urethram* by organisms upon or in the catheter, though it is just possible that they may have gained entrance by their own passage up the urethra, or even through the blood. Much as one would like to lay the blame upon trophic disturbances, I personally consider that we have but scanty ground for so doing. In some cases of cord lesion low down in the dorsal segment the sufferer may recover from the actual damage, though with permanent paraplegia, provided that sepsis is rigidly excluded, but if his urine has to be withdrawn by catheter, there is ever a liability of septic trouble arising. An even more simple method of aseptic catheterisation than that recently advocated by Mr. H. T. Herring[1] is much more to be desired, if such there be, for use in these cases.

Carcinoma of the Mammary Gland.

I have had two deaths during the year from mammary carcinoma, and though in neither of them was the fatal result connected with an operation, I have included them because of some points of interest in each.

In the first case a woman, aged 34, had a rapidly growing carcinoma of the right mamma, commencing during pregnancy. I amputated the organ with very free excision of skin and lymphatic glands. The patient recovered well. Five months later two small nodules were observed in the opposite left mamma, and there was some evidence of secondary deposit in the left lung. There was no recurrence anywhere on the right side. After consultation it was agreed that no local operation would be of any service, but the possibilities of benefit from double oöphorectomy were pointed out, and the patient and her husband desired that the operation should be undertaken. This was carried out. As a point

[1] "The Sterilisation of Urethral Instruments." H. K. Lewis, 1903.

worthy of passing notice, the patient began to menstruate four days after the removal of the ovaries and tubes, the flow continuing for three days, though the amount lost was less than formerly. The operation had no appreciable effect upon any of the carcinomatous deposits, and the patient steadily became worse, and died from pulmonary infiltration thirteen months after the amputation and eight months after the oöphorectomy. What has been impressed upon me by this case is the extreme malignancy of carcinoma beginning in pregnancy, the not infrequent implication of the opposite mamma, and the utter uselessness of oöphorectomy in some instances.

The second case was in a woman, aged 66, who, two months before I saw her, had noticed some pain and smarting in the right mamma. Her mother died of carcinoma. A large mass of new growth. Skin not adherent. Gland freely movable on the deeper structures. Glands in axilla, but none felt above clavicle. Free excision of all affected tissues. Improved, but three months afterwards a gland was felt in the supraclavicular fossa. This was easily removed. Then signs of pulmonary infection came on, and the patient died from these secondary deposits six months after the amputation of the breast.

This case exhibits the uncertainty of the prognosis in carcinoma, for on the whole it appeared to be a fairly favourable one, but its course was very rapid. It will be noticed that in both these instances there were secondary deposits in the lungs. Is it possible that, if amputation of the mamma is undertaken without the knowledge that there is already pulmonary affection, the growths in the lungs may become very rapidly increased thereafter? I have often questioned whether the ablation of a primary growth may not somehow enhance the invasion of any secondary deposits.

We now pass to the series of fourteen abdominal cases. These were as follows: one from peritoneal tubercle, one from gastric hæmorrhage, one from hæmorrhage from the hepatic artery, another from carcinoma of the splenic flexure, three from intussusception, a strangulation by a band, a strangulated femoral hernia, another from multiple abscesses of the liver, and four cases definitely dependent upon the vermiform appendix.

Tuberculous Peritonitis.

I was called late one night to see a girl, aged 15, who had been in what was considered her normal health until a few weeks previously, when she had some diarrhœa and loss of appetite. On the evening in question she had been suddenly seized with very severe abdominal pain, chiefly referred to the right iliac fossa. On examination I found the patient obviously very ill, and somewhat cold and collapsed, and evidently in great pain. I suspected some perforation, probably of the appendix, on account of the location of the pain. The case was some little way out of town, and operation seemed too hazardous at the hour. I decided to give the patient a hypodermic injection of morphine, and to return early the next morning to operate. I, however, then found her considerably improved, and a more detailed examination of the abdomen revealed through the less rigid walls several firm masses in the upper half, just such as occur in tuberculous peritonitis. There was no free fluid nor any signs of septic peritonitis. I therefore decided against exploration. I saw her again in consultation with a physician, who confirmed the diagnosis of tubercle, and was adverse to laparotomy. I did not see what could be gained by it. The child, in spite of fresh air, careful diet and excellent nursing, steadily went downhill and died some weeks later. Unfortunately no *post mortem* was made, so that the exact condition of matters is uncertain. The questions which arise in connection with this case are, What was the cause of the symptoms of perforation, and ought an exploratory operation to have been undertaken in spite of the improvement on the second visit?

Gastric Hæmorrhage.

A well-developed girl of 22 was admitted under Sir Dyce Duckworth, suffering from the effects of severe hæmatemesis. Two days after admission there was a recurrence of bleeding. I was asked to see the patient three hours afterwards. As she was steadily getting worse, it was suspected that bleeding was continuing, and after consultation it was deemed advisable to explore. Laparotomy and an external examination of the stomach revealed no indication of the site of any ulcer. The stomach was therefore drawn out and opened,

and found to contain a good deal of blood. This was flushed out and a search made for a bleeding point. Only quite a small vessel was discovered without any ulceration around it. This was ligatured. No further hæmorrhage took place, but the patient became steadily worse and died three days afterwards. Unfortunately, no *post mortem* was allowed, so that the exact cause of death could not be ascertained.

This is one of those cases in which the question naturally arises as to whether operation was the correct line of treatment. Time does not permit me to discuss it, but I should like to ask members how many instances of death due to actual hæmorrhage from a gastric ulcer have they seen, because the real mortality from this particular cause ought to be a strong factor in determining whether or not operative measures should be advocated.

Hæmorrhage from the Hepatic Artery in the Floor of a Duodenal Ulcer.

I performed posterior gastro-enterostomy upon a man who had long suffered from gastric dilatation due to duodenal constriction. He did well for ten days and then died rather suddenly from hæmorrhage. On *post-mortem* examination the anastomosis was found to be perfect, but it was evident that the disturbance of the parts had set up fresh activity in the duodenal ulcer, with erosion into the hepatic artery crossing the floor of the ulcer. The lesson that I have learnt from this case is that the utmost gentleness must be exercised in dealing with such conditions as adhesions about the first part of the duodenum, and that while the gastro-intestinal anastomosis may be satisfactory, there are other dangers threatening the patient. (For fuller details of this case see *Brit. Med. Journ.*, October, 1903.)

Carcinoma of the Splenic Flexure.

A woman was admitted into hospital with a large perinephritic abscess. This I opened, evacuating most foul pus, evidencing a probable communication with intestine. The patient succumbed. *Post mortem*, a carcinoma of the splenic flexure which had perforated the bowel was discovered. I know of no more difficult situation for diagnosis and treatment of an intestinal growth.

Five cases of intestinal obstruction ending fatally fell to my share during the last year. They comprised intussusception, internal strangulation by a band, and a strangulated femoral hernia.

Intussusception.

This is still a very fatal lesion. I had three cases to deal with and all three perished. Curiously enough all three cases came under my cognisance within one month in the early part of 1903, and I have not had another case since.

Two of them were of the acute variety, and one was chronic.

The first case was a typical one in a girl aged 16 months. Possibly the onset may have been caused by the eating of part of a raw apple three days before I was called in. I performed laparotomy at once, revealed an ileo-cæcal intussusception, failed to easily reduce it, and the child being almost moribund, I was forced to close the abdomen. The lesson to be learnt from this case is that an earlier diagnosis —and the case was quite distinctive—might have saved the child's life.

The second case was in a girl aged 17. She was seized with sudden pain in the abdomen the day before, with vomiting. A mass could be felt in the lower abdomen on the right side. The diagnosis of either appendicitis or a twisted ovarian pedicle was provisionally made. Laparotomy was performed and a very long intussusception of a purely enteric nature was found. It was delivered outside the abdominal wall, and with fair ease reduced. The intussusceptum was $4\frac{3}{4}$ feet in length, and parts of it were very rotten and almost perforated. It was therefore felt wisest to resect its length. This was done, and an end to end anastomosis over a bone bobbin carried out. Afterwards there were several attacks of hæmorrhage from the bowel, and the patient collapsed and died three days subsequent to the operation. The portion of ileum removed was found to contain numerous polypoid growths. *Post mortem*, there was evidence of peritonitis, and the anastomosis was not perfect at the dangerous mesenteric border.

The third case was that of a young man who ten weeks before admission had suffered from pain all over the abdomen and some vomiting. There had been no diarrhœa, but

constipation at times. Sitting up and pressing over the epigastric region tended to relieve pain, which was spasmodic in character. The abdomen was flat with the exception of the prominence which lay across the upper part above the umbilicus. No actual diagnosis was made, but the case was thought to be possibly one of tuberculous peritonitis, and the swelling to be felt to be one of infiltrated omentum. An exploratory excision revealed adherent, inflamed and friable tissue. The wound was therefore left open and drained. The patient died the next day. The *post-mortem* examination revealed general peritonitis, and it was found that the whole of the transverse colon was filled by an intussusceptum, which was gangrenous.

These two cases are of special interest in connection with the fact that diagnosis was very uncertain, and that laparotomy, both for diagnosis and treatment, was undoubtedly the correct mode of procedure, though it did not unfortunately save the life of either patient.

Two cases of strangulation ended fatally.

Strangulation by an Internal Band.

An elderly man was suddenly seized with abdominal pain in the early morning, after dining well the previous night in the City. Evidence of intestinal obstruction soon revealed itself. Fifty hours after commencement of symptoms I was asked to see him, and I at once opened the abdomen and found a loop of small intestine strangled by a band, and gangrenous. The patient's condition would not allow of more than enterotomy, and he very shortly afterwards died. Again the lesson to be learned is that an earlier laparotomy might possibly have saved life.

Strangulated Femoral Hernia.

Operation one hour after admission to the hospital upon a femoral hernia in an elderly woman. The symptoms of strangulation had been in existence for one week. Much adherent omentum found, which was but little congested. In the midst of it a small knuckle of gut, very dark and swollen. The gut was reduced, and the omentum ligatured and removed. There was no relief from the operation, and the patient died a few hours later. The moral of this case

is that every suspicious hernia should be early explored, unless there are distinct reasons against any operative measures. Here the intestine was strangled within omentum, which itself was little if at all nipped, a not very rare condition, but one apt to be overlooked.

The remaining five cases are all deaths due to bacterial inflammation of the vermiform appendix.

Pyæmic Hepatic Abscesses.

This first case is one in which I have no absolute proof that the appendix was the root of the mischief, but I greatly suspect that it was so.

A gentleman, aged 39, for several months had been troubled with attacks of vomiting, accompanied by some abdominal pain on the right side. I was asked to see him because he had a rigor, and exhibited some amount of jaundice. Hepatic inflammation and probably suppuration was diagnosed. An incision through the upper part of the right rectus revealed the liver with a thickened rounded lower margin, and some recent adhesions about the gall bladder. The bladder was opened but no pus found. The wound was left open, and packed with gauze. The temperature fell and no rigors recurred until nine days later. The liver was then punctured through the wound and pus found at some depth, the cavity containing it being drained. The temperature, however, never returned to normal, rigors were repeated, and the patient died a fortnight later. A local *post-mortem* examination showed two other smaller abscesses in the liver substance. Whatever the source of the infection this was one of those hopeless cases of multiple suppuration in the hepatic tissue beyond the reach of successful treatment by surgery. Many of them are in reality dependent upon appendicitis, and form one of the fatal terminations of the lesion.

Pyæmia from Appendicitis.

This case was almost a tragedy.

A girl, aged 21, who had had abdominal pain at times in the right lower abdomen associated with vomiting, was taken with a more severe attack than ever before during her actual marriage ceremony. It was also accompanied by vomiting, and later by painful micturition. She was admitted into a

medical ward. Twelve days afterwards there were signs of apparent pleurisy at both bases. A fortnight later, as she continued to have signs pointing to suppuration, and as pain was referred to the upper part of the abdomen, my colleague, Mr. Bruce Clarke, explored by an incision in the middle line above the umbilicus. Pus was found between the liver and the diaphragm. It was thought to be due to a leakage of a gastric ulcer, and a dependent opening was made in the right loin below the costal arch, and drainage thereby established. She improved considerably for a month. Soon afterwards the discharge became very offensive. About this time she came under my care. By very careful washing out with peroxide of hydrogen the bad odour disappeared. Much trouble then arose in the lungs, and was thought to be of a tuberculous nature, though no bacilli were ever found. She grew worse, and died about two months after the onset of the symptoms. *Post mortem*, an abscess was found around the appendix, and tracking up to the post-peritoneal tissue to beneath the diaphragm, which was perforated on the left side.

Perforative Peritonitis.

The last three cases were all of peritonitis consequent upon appendicitis. All were in young subjects.

The first, a boy, aged 8, who had had several attacks of "stomach-ache" at various times, but had never had to lie up for any. On a Saturday afternoon he had been to a children's party, and had doubtless eaten well though not too wisely. On the Monday following, in the early morning, he was taken with violent abdominal pains. The next day his temperature was 102·4° F., and he vomited. I saw him the following day and found his abdomen distended. I at once opened it, finding a perforated appendix, but no general peritonitis. After the removal of the appendix the wound was closed. The bowels soon acted well, the tympanites disappeared, and the child seemed doing well. The temperature, however, then again rose and he exhibited signs of meningitis, with dilated pupils, insensibility and convulsions, seven hours before death. No *post mortem* was obtained. I consider that this case was probably one in which septic infection was occasioned by absorption from the peritoneal cavity, leading later to meningeal involvement. It urges the

necessity of carefully excluding the association of repeated attacks of " indigestion " with an actual lesion of the appendix, removal of which in a quiescent period is safe, and should rid the child of all its digestive ills.

The last two cases were examples of general purulent peritonitis due to perforative appendicitis.

A girl, aged 21, had an attack of abdominal pain in the right iliac fossa. Said to have recovered, and then five months later had another, four days before I was asked to see her. I found the abdomen greatly distended. The temperature was only 96° F., while the pulse was 118 to the minute. These three signs are to my mind almost pathognomonic of general peritonitis, namely, distention, a normal or subnormal temperature, and a rapid, weak pulse. I opened the abdomen and drained it, but she died the next day.

A lad, aged 19, was seen by me on the fifth day of the attack. There was much distention, the temperature only 97° F., and pulse 100. I opened the abdomen, and pus at once welled up. Appendix was easily found and removed. The abdomen was drained. For two days he appeared to be going on well, passing flatus freely. There was then a return of the distention, and he died four days after the operation. This last case was almost a replica of the former.

It will be seen that no less than five out of the seventeen deaths were due to appendicitis, a very large proportion, and one which I do not think can be solely accounted for by the fact that I happen to see a considerable number of appendix cases. Appendicitis is certainly more frequent than it was. It is apt to be a very protean disease, and to run an all too frequently fatal course. These cases tend to prove that if there is a strong suspicion that the appendix has been inflamed, it is safer to remove it than to wait for subsequent attacks, any one of which may prove disastrous. Removal in the interval is almost without a death-rate.

I trust that this brief *résumé* of my fatal cases may prove of interest, as they have taught me lessons which I could not easily have learnt from my successful ones, and they have thus, though I much regret their fatal issue, served, in their way, a useful purpose.

In conclusion, I would venture to say that the following queries present themselves to me in connection with this series of fatalities.

(1) Why do head injuries which are going to prove fatal, exhibit a progressively high temperature ?

(2) Is it still justifiable to resort to oöphorectomy in inoperable mammary carcinoma ?

(3) Should laparotomy be performed in all cases of tuberculous peritonitis, or only in those accompanied with marked effusion ?

(4) When is the proper moment, if any, for operative interference in gastric hæmorrhage ?

(5) Cannot earlier diagnosis be hoped for in severe abdominal lesions ?

(6) Is it not well to remove the appendix after even only *one* attack of inflammation, if this be an undoubted one ?

PARALYTIC DEFORMITIES: THEIR MODERN TREATMENT, ITS AIMS AND LIMITS (an Abstract).

By J. Jackson Clarke, M.B., F.R.C.S.

Surgeon to the North-West London and City Orthopædic Hospitals.

A wide range of nerve-lesions, whether cerebral, spinal, or peripheral, lead to disabilities and deformities that require surgical treatment; the range and scope of surgery has of late years been so markedly increased that it has become necessary to consider very carefully what are the aims, and (as far as is possible), what are the limits of such surgical treatment. Infantile paralysis and cerebral spastic paralysis provide the two largest groups of paralytic deformities.

Infantile Paralysis.—The first thing to be remembered in consideration of the treatment of any morbid condition is its natural history. The chief point in the natural history of infantile paralysis is that it tends to improve. After nine months this improvement ceases, therefore the medical treatment should not be prolonged after this period. Some surgeons have recently stated that the medical stage of infantile paralysis should be limited to the first few days. Now I think that in every case it would be wise for the medical man to secure the loyal co-operation of a competent surgeon early in any case where deformity threatens, because the judicious use of simple apparatus often assists recovery, prevents deformity and the need of future surgical intervention.

I would dwell for a few moments on the dangers of ineffi-

cient surgery in paralytic deformities. Take, for instance, a common condition, a simple paralytic equinus. What happens too often is that the tendo Achillis is divided subcutaneously, the limb is kept in a splint for a few weeks and then the patient is allowed to walk. At first the result seems to be perfect and both patient and doctor are pleased. Gradually, from excessive lengthening of the scar tissue a worse deformity, talipes calcaneus, develops and requires a tendon transplantation to correct it. We must also remember that in some cases of infantile paralysis a talipes equinus is an advantage and hence should be left alone; there are cases in which there is a fair amount of power in the muscles of both sides of the leg, and the equinus compensates for shortness of the leg.

Tendon transplantation should be limited to cases in which there is a fair residuum of muscular power and in which the deformity can be corrected at the time the transplantation is made. In slight cases of paralytic equinus I have found that tendon transplantation can quite easily be done subcutaneously. Lange's artificial tendons of silk were of great assistance in some cases of tendon transplantation; in the case of a man, aged 27, who had been deformed since the age of 7, I obtained a very good result by transplanting the long head of the biceps and the semi-tendinosus to the front of the joint after section of all the hamstrings and the fascia in the popliteal space. *Arthrodesis* is most often of use at the ankle joint.

Cerebral spastic paralysis offers a gratifying field to the surgeon. The timid recommendations of the older neurologists were the result of inefficient surgery. The aim was to obtain an equalisation of power in the opposed groups of muscles, by suitable instrumentation in the slightest cases, following muscle stretching under anæsthesia. Tendon-lengthening, tenotomy, tenectomy and myectomy were required, according to the severity of the affection in more pronounced cases. Paralysis of the deltoid and biceps, and other muscles, from injury of the upper root of the brachial plexus (Erb-Duchenne type) offers scope for nerve transplantation. More experience was required in this direction. Friedreich's disease, some forms of progressive muscular paralysis and several other nerve affections, offer a scope for surgery if careful selection of cases is made.

Report of Proceedings.

ORDINARY MEETING.—Clinical Evening, Friday, April 8, 1904.

Dr. SEYMOUR TAYLOR, President, in the Chair.

The following gentlemen were elected members of the Society: James Abernethy, M.B., B.S.Melb., Springwell-Barnes; S. Marshall Banham, M.B.Lond., M.R.C.S., L.R.C.P., Ellesmere, Uxbridge Road, Ealing Common, W.; P. L. Daniel, F.R.C.S., L.R.C.P., 5, Devonshire Street, Portland Place, W.; John Garrett, L.S.A., Nortoft, Churchfield Road, Acton, W.; J. Cole Marshall, M.B.Lond., F.R.C.S., 66, Sutherland Avenue, W.; O. Carden Sibley, L.S.A., 11, Elmwood Gardens, Acton, W.; H. J. Thornton, M.R.C.S., L.R.C.P., The Maples, Acton, W.; J. Davenport Windle, M.D.Vict., M.R.C.S., Cippenham Lodge, Southall.

A Case of Molluscum Contagiosum.

Dr. P. S. ABRAHAM: This little girl has numerous mollusca contagiosa over the face and one or two on the body. The lesions are quite typical, pearly in appearance, the larger ones umbilicated. If the diagnosis were at all doubtful, a scraping, examined under the microscope, would at once show the characteristic "molluscum bodies," reminding one of ants' eggs. These cases should of course be at once recognised, but I have known some extraordinary diagnoses when the lesions have been numerous.

One lady, the wife of a medical man, came to me for supposed "chicken-pox," her chest, arms and back, were covered with the translucent little umbilicated tumours. Another, a gentleman, had enormous numbers of them, large and small, all over the limbs and body, and he had been treated for syphilis.

Case of "Creeping Linear Dermatitis."

Dr. P. S. ABRAHAM: This case is a very remarkable one. The mother says that an abscess formed in the child's right breast shortly after birth, in consequence of the midwife "pinching" the breast to improve its subsequent development. This little abscess has gradually travelled right across the chest, leaving a serpiginous, slightly pigmented, irregular line, marked by numerous whitish pits, evidently the sites of the abscesses. The girl is now 7½ years old, rather delicate

and ill-nourished, and has recently had impetigo of the scalp. The case strongly reminds one of the "creeping eruption" described by Dr. Lee in 1872 and 1884, and also to some extent of those cases which have been due to the subcutaneous burrowing of an œstrus larva. The term "larva migrans" has been applied to all these creeping linear lesions—in my opinion very incorrectly. Even in those cases in which the line has been proved to have been so developed, the expression is illogical, and I believe that some of the cases, like the one now exhibited, have nothing whatever to do with a migrating larva. I have to thank my friend, Mr. Leonard Mark, for the excellent drawing of the case which I am passing round, and I have only to say that it is my intention to excise the end of the creeping line and to make a thorough microscopical examination.

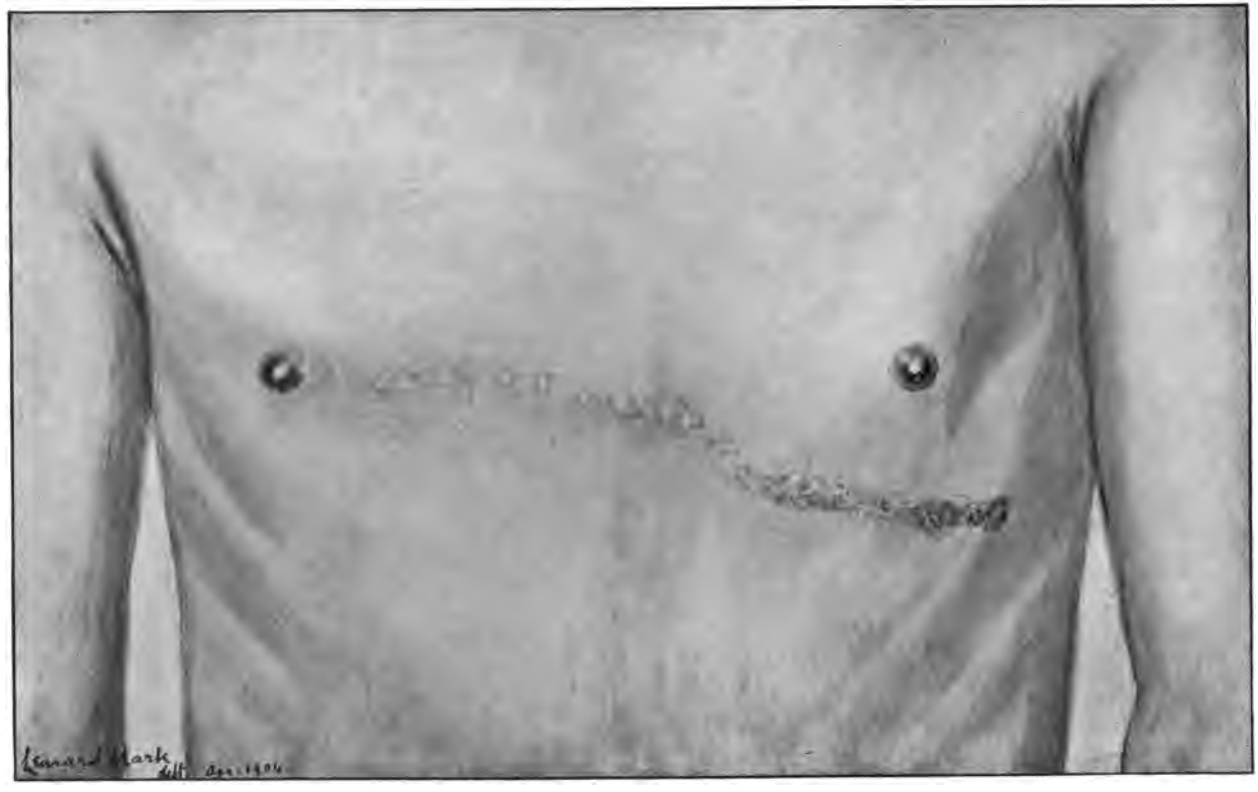
Case of Molluscum Contagiosum.

Dr. CAMPBELL POPE: In regard to Dr. Abraham's case of molluscum contagiosum, I recently attended a lady, a Poor Law Guardian, who had been seen some four months previously by a medical man who diagnosed varicella, which she was supposed to have caught in attending to her official duties. As the varicella vesicles remained for four months I was asked to see the case, and found some eighty small tumours on the body, looking somewhat like little pearl buttons with a pinkish lustre, as described by Malcolm Morris. I applied a drop of pure carbolic acid to each tumour, doing about twenty or thirty at a sitting, and they all disappeared, some after one application, and most of them after two. There has been no return of the growths.

Respecting the treatment of the mammæ of female children described by Dr. Abraham in narrating his second case, I have very frequently seen the practice resorted to in the days of the Gamp nurses, not in these London Obstetrical Society times. It is called "breaking the nipple strings." I never heard that it was used with the æsthetic object described by Dr. Abraham; I have always understood from the nurses that it was for the purpose of freeing the nipple, so that in after years there should not be "retracted nipple" and the mammary abscess which frequently accompanies that condition. So far from its having had that preventive action, it has in my opinion been a very frequent cause of "retracted nipple" and the tendency to abscess which it was designed to obviate.

Case of Anorexia Nervosa.

The PRESIDENT: D. H., female, aged 23, a teacher of music, was admitted under my care suffering from extreme emaciation.



Dr. Abraham's Case of Creeping Tinear Dermatosis.

There is no history and no sign of tuberculosis, and she has no evidence of glycosuria. She has steadily refused food except under great persuasion for the past six months, so that when admitted to my ward she was almost reduced to a skeleton, the emaciation being general throughout the body. In addition, her mental condition is noteworthy. She is perverse, suspicious, and "naughty." At times she is obstinate, and will not reply to any questions, and with vacant stare would give one the opinion that she was dumb. Food at first could only be administered by artificial feeding, and even now, with the threatened advent of the nasal tube, she can only be induced to take the smallest amount of nourishment.

Such cases usually recover under the influence of Weir Mitchell treatment. They put on flesh, become more cheerful, and take a less gloomy view of their ailment. It must be admitted, however, that in many instances there is some antecedent error of digestion, such as one sees in the pre-ulcerative stage of gastric ulcer. On the other hand, the mental condition of all is such as to make us justified in regarding these sufferers as being on the border line of insanity.

Dr. CAMPBELL POPE: I have had for some two years under treatment a lady of neurotic tendencies, who was either by her own will or through inattention of the persons with whom she resided, starved into a condition of extreme emaciation. When moved to comfortable surroundings and placed under very efficient nursing care, it was found that she had enormous bedsores, and a condition of "fragilitas ossium" of so marked a degree, that in the simple operation of turning her in bed by trained nurses both her femora fractured on several occasions, and the tibia and fibula once, whilst her rib bones and spine collapsed into very distorted shapes. Under great care by nurses and the internal administration of hypophosphites the huge bedsores have healed and the bones have united, leaving, unavoidably, considerable deformity. The mental condition has also greatly improved. The healing of the bedsores seemed at one time greatly facilitated by the local application of bovinine.

I would allude also to the case of a young lady who, in a mistaken view of thinning herself and improving her appearance, developed anorexia nervosa to a great extent and became much emaciated. She is now more willing to eat, but has an intractable condition of amylaceous dyspepsia. The condition of her daughter so worried the mother that she, too, has fallen into a similar state and has lost more than three stones in weight from nervous anxiety and anorexia.

The daughter has attacks of abstraction, and at times irritable temper. Neither patient has tubercle or diabetes.

Dr. THORNE THORNE: I would ask the President if, in his experience, cases of anorexia nervosa treated by the "Weir Mitchell" treatment usually relapse, as the only case of this kind which I have treated by the "Weir Mitchell" methods improved greatly at the time, but relapsed in a comparatively short period after returning to her family.

Dr. PODMORE: I should like to ask whether the President attributes the emaciation in these cases to the want of food alone or to other contributory causes.

Mr. R. W. LLOYD: A patient presenting the emaciated appearance and mental condition of the one shown by the President, is not unlikely to excite the medico-legal inquisitiveness of a medical man called in to see the patient at home. The origin and progress of such cases might exceptionally involve grave legal as well as medical questions. A patient that I saw some years ago presenting more extreme, though similar, appearances, was living in suspicious surroundings, and was at once removed to this hospital, where she died soon after. A *post mortem* unexpectedly revealed an old ulcer near the pylorus, with the stone of a plum imbedded in it. The possibility of local pathological exciting causes of the anorexia is difficult to exclude with certainty. I would suggest rectal feeding as an auxiliary, for its nutrient effect. The consequent improved nutrition as well as any objection to or discomfort of this additional method of feeding, might be of mental benefit. Mental deficiency might be cause or effect of the malnutrition, and in any case aggravated by it.

Dr. GRAHAM: It would be of interest if the President would state what progress has been made by the last case he brought before the Society since she was shown. One member in the discussion on the case suggested that treatment by high frequency currents should be tried, and I should be glad to hear the result, if the suggested treatment has been fairly given. In a case of a similar nature under my care, though not so severe as the President's case, I gave high frequency successfully, obtaining an increase of weight of eight pounds during a three weeks' course of treatment.

Dr. J. D. MORTIMER: I am inclined to go further than Dr. Seymour Taylor in his remarks as to the *borderland* of insanity, and indeed, if I had admitted such a case in former days at Bethlem, I should have certainly arranged for unremitting supervision. One can never tell whether some suicidal tendency may not develop in such cases, and this may happen suddenly. As to the association of melancholia

with malnutrition, Clouston, in his "Mental Diseases," emphasises the close connection, and lays great stress on the importance of "feeding up" and "fresh air." He also gives many instances where the mental symptoms occurred in conjunction with organic lesions (abdominal cancer, &c., &c.) and were out of all proportion to the definite visceral disease which existed.

A Case of Cyst of the Maxillary Antrum.

Dr. J. B. BALL: This is a girl, aged 17, who came to the West London Hospital about four weeks ago, with a marked swelling of the left cheek. She stated that the cheek had been gradually swelling for about three months, but had given her no pain. The swelling of the cheek suggested at once distention of the antrum. At one point the swelling was soft, as from absorption of bone. On lifting up the lip the region of the canine fossa was found to be occupied with a soft fluctuating swelling, the anterior wall of the antrum being absorbed. There was a marked swelling of the palate on the left side, owing to protrusion downwards of the floor of the antrum. This swelling was soft at one point from absorption of the bone. The left nasal passage was almost completely obstructed, owing to the parts on the outer wall of the nasal fossa being pushed towards the septum. On electric transillumination this side of the face showed a marked shadow. An exploring syringe was introduced through the canine fossa, and some viscid dark-brownish fluid was drawn off. The brown colour and opacity of this fluid was found to be due to the presence of a large quantity of cholesterine crystals. The case was treated by incising the anterior wall of the antrum where the bone was absorbed and evacuating the fluid. A large opening was then made through the nasal wall of the antrum into the nose near the floor. The wound in the canine fossa was allowed to close. She is now quite well. There is little or no deformity of the face remaining, the left nasal passage is free, but the hard palate on the left side bulges somewhat.

A Case of Melanotic Sarcoma of the Soft Palate.

Dr. J. B. BALL: This is a man, aged 53, who noticed black patches on the roof of the mouth about two years ago. About eight or nine months ago a growth appeared on the soft palate. He took little notice of it as it gave him no discomfort, until three weeks ago, when it bled. He then showed it to his doctor, who sent him to me at the West London Hospital. He has a dark-looking, flattened, somewhat mushroom-like growth on the middle of the soft palate.

There are numerous pigmented patches on the soft and hard palate and on the gums in the upper jaw. The first question which suggests itself is whether this is a primary growth. I believe that melanotic tumours are rare in this situation as primary, but not uncommon as secondary growths. As the pigmented patches appeared on the soft palate at least two years ago, and there is now no evidence of any growth elsewhere, it seems certain that this is the primary seat of the disease. The next question is what is best to be done. Different opinions have been offered by those who have seen the case. Some recommend leaving it alone, as operation would be useless in any case. Others have suggested the free removal of the growth, while others recommend free removal of the growth and of all the soft parts on which the patches of pigmentation are present.

Mr. C. B. KEETLEY: The prognosis is probably equally bad either with or without operation. Still I think a *local* cure might be obtained by free removal with a wide margin of apparently healthy tissue. The numerous patches of discolouration I should leave alone. They are probably accompanied by other foci not yet visible, which will appear if the patient lives long enough.

A Case of Chloasma.

Mr. GARRY SIMPSON: The patient I showed, a female, aged 18, consulted me a fortnight ago. I found a pronounced pigmentary deposit of a liver tint on the left side of her neck, and also slight deposit on the right side. She gave a history of being exposed to a cold wind up the river, and a day or so after she noticed the sudden change in the colour of her neck. In my opinion the case is undoubtedly one of chloasma, and may be due to deranged nutrition, hyperæmia, or altered innervation.

The interest in the case, besides its appearance in a few hours, is the rapidity in which it is clearing up under treatment. I am painting twice daily with colourless T. iodine and rubbing in the ung. pot. iodidi. As the patient is somewhat neurotic I am giving bromide internally.

Dr. SEYMOUR TAYLOR: This is not a case of pityriasis versicolor, seeing that this is a disease usually found in men, and especially affecting those whose occupations predispose to violent perspiration. Here is a young girl who is naturally anxious for her personal appearance, and who is doubtless in the way of using daily ablutions.

ORDINARY MEETING.—Friday, May 6, 1904.

Dr. SEYMOUR TAYLOR, President, in the Chair.

The following gentlemen were unanimously elected members of the Society: W. H. Bailey, M.B.Lond., M.R.C.S., Featherstone Hall, Southall; W. H. Burrows, M.R.C.S., L.S.A., Eagle House, Avenue Road, Acton, W.; W. N. Heard, M.B.Cantab., M.R.C.S., L.R.C.P., 18, Ravenscroft Road, Chiswick, W.; E. E. Landon, M.R.C.S., L.R.C.P., Bradbourne House, Acton, W.; A. T. Nash, M.D.R.U.I., Beresford House, Ladbroke Grove, W.; P. A. Nightingale, M.D.Edin., 9, Campden Hill Road, Kensington, W.

Operative Treatment in Pancreatitis.

Mr. L. BIDWELL read a paper upon this subject, which is published under "Original Communications."

The following discussion ensued:—

The PRESIDENT: I am accustomed to look for the symptoms of rigor as one great diagnostic value in gall colic. Given a patient suffering from obstructive jaundice with colic, I have almost invariably found that the patient suffered from rigors more or less severe. This symptom I have regarded as being related to "shock," but I cannot prove it. If many of the symptoms of acute pancreatitis are similar to those of gall colic (as Mr. Bidwell has shown), but if in the latter alone rigors exist, then I would submit that we have a valuable differential sign. I would also ask if there be any causal relation between cynanche parotidea (mumps) and pancreatitis. Possibly the same micro-organism which gives rise to mumps may be found to have originated pancreatitis.

Mr. MCADAM ECCLES: I had the opportunity of observing the last two cases that Mr. Bidwell has referred to. The point which is of great interest is the fact of clear, not clouded, mucus in the gall bladder. In the first of these cases some fluid, which certainly seemed to be pus, came from the common bile duct after the gall bladder was emptied. In neither case was there any sign of calculi in the biliary ducts. I feel sure that in some instances, where a patient suffers from what appears to be attacks of biliary colic and presents sugar in the urine, the pancreas is the seat of the real lesion. In such cases the glycosuria, instead of negativing operation, is rather a condition which should indicate the necessity for exploration.

Mr. PERCY PATON: In reference to the two last cases which Mr. Bidwell has recounted to us, it appears to me that there is a good deal of uncertainty as to the diagnosis, as in neither of them, I gather, was a microscopic examination of

the pancreas made. The course of malignant disease in any part of the body is often very variable, and nowhere more so than in the abdomen, and it seems to me that in both of these cases the true nature of the disease may not improbably have been carcinoma.

About eighteen months ago I had a case which may very well have been pancreatitis of a subacute kind. The patient was a man about 30, who was suddenly attacked in the middle of the night with the most violent pain in the epigastrium. There was some tenderness, and a little rise of temperature, and the pulse was rapid; a slight icteric tinge of the conjunctiva was also present, but there was nothing to be felt in the abdomen. He was moved to a nursing home, but though his pain decreased it did not quite go, and his abdomen was therefore opened and the gall ducts explored. Nothing abnormal was found, but the pancreas was possibly a little large; the gall bladder, which was full, was stitched to the abdominal wall and drained with complete relief, and the wound closed rapidly. About six weeks later, when he had left London, he had a similar attack, which was again relieved by gall bladder drainage by another surgeon. Since then I have not heard of him.

Mr. McAdam Eccles read a paper entitled

Lessons from a Year's Fatalities,

which will be found under "Original Communications."

The following remarks were made:—

The President: I regard it as possible, after reading Dr. Hale White's papers on "Heat Centres," that an injury to the central cortex or higher centres may result in loss of control influence over the minor physiological centres below, a similar or parallel condition being observed in the cord reflexes both superficial and deep, which are exaggerated or run riot in lesion of the Rolandic or higher centres.

Mr. Percy Paton: I should like to heartily endorse what both Mr. Eccles and Mr. Bidwell have said as to the advisability of removing the appendix after one clear attack of inflammation of this organ, one is only too familiar with cases of general peritonitis occurring at a later date in such cases. As to tuberculous peritonitis, I have seen the most satisfactory results in some cases where there have been large masses present, and very little fluid after opening the abdomen. This was especially noteworthy in a little girl of 6, on whom I operated some little time back. In her there were many masses, and the interior abdominal wall was in places the better part of an inch thick; a small part of this was removed and microscoped, and showed typical tubercles. After the operation the masses rapidly shrank, and when I last heard of the child she was in good health.

Mr. F. G. LLOYD: I have listened with great interest to Mr. Eccles' paper this evening. There is little doubt but that "appendicitis" is commoner, or at all events is more commonly recognised, than formerly. I regret that I am unable to agree with Mr. Eccles' conclusion as to the treatment of "appendicitis." I do not think that to operate indiscriminately on *every* case of "appendicitis" after or during the first attack, should be an *invariable* rule. The statistics of many authorities teach us (1) that 70 to 75 per cent. of cases of "appendicitis" get well under careful treatment without operation; (2) that the more serious varieties of "appendicitis" cannot be anticipated; (3) that in "appendicitis" after repeated attacks recovery may be complete; (4) that operation is not necessarily a "panacea" in this disease. I would like to ask Mr. Eccles whether he has met with cases ending by death occurring after operation, the patient having developed a condition indistinguishable from acute "yellow atrophy of the liver."

Mr. GARRY SIMPSON: I have frequently noticed a high temperature in cases of cerebral hæmorrhage that are going to have an unfavourable termination. I am inclined to agree with Dr. Seymour Taylor as to the probable cause of the persistent pyrexia.

Mr. MCADAM ECCLES: I think that the hyperpyrexia in head injuries, and probably also in cerebral hæmorrhage, is more likely to be due to some disturbance of the nervous vasomotor mechanism, rather than merely loss of control of the higher centres, allowing the lower to run riot. I am sure that the vermiform appendix as well as the Fallopian tube may be the starting point of tuberculous peritonitis. I have never seen a case of acute yellow atrophy of the liver following appendicitis.

ORDINARY MEETING.—Friday, June 3, 1904.

Dr. SEYMOUR TAYLOR, President, in the Chair.

The following gentleman was unanimously elected a member of the Society: — John Sinclair, M.D.Dunelm, M.R.C.P., M.R.C.S., Medical Department, General Post Office, London.

Mr. J. JACKSON CLARKE read a paper entitled

The Objects and Limits of the Surgical Treatment of Paralytic Deformities,

which will be found under "Original Communications."

The following discussion ensued:—

The PRESIDENT: In infantile paralysis the rule which I

observe is that it is not well to advocate any cutting operation so long as any pyrexia exists, for the existence of a temperature is evidence that active cell injury (and possible destruction) is still present, and therefore the full extent of the resultant injury is not yet known. After the temperature has subsided the sooner active treatment by electricity is resorted to the better, and then if there be no sign of improvement some of the many surgical operations must be performed, and with as little delay as possible.

Mr. PATON: I am in entire agreement with Mr. Jackson Clarke in the view that it would be well if the surgeon had an opportunity of seeing some of the cases of infantile palsy at an earlier date than is usual, so that the onset of deformity may be prevented, as it often can be, by early splinting, though I should quite agree with our President that no operation should be done until all pyrexia has subsided for some time. I think that it is an important point, as noted in the paper, as a rule not to do arthrodesis on both hip and knee in cases of flail lower limb, but rather to fix the ankle and rectify the trouble in the knee by some such means as tendon grafting and give the increased support that will be necessary by means of a well-devised instrument.

Mr. LAMING EVANS: With reference to tendon elongation for contractions, I think that the cases may still, with advantage, be divided into (*a*) slight, (*b*) severe, and that simple tenotomy may be employed in the former with excellent results, at the same time avoiding the more severe operation and the necessity for in-patient treatment. I have recently corrected a case of severe equinus by lengthening the tendo Achillis 2½ in.; the uniting medium was massive and firm in four weeks. I consider that this operation in these cases saves time to the patient, ensures a more certain correction, and avoids the risk of a weak aponeurotic union. With reference to tendon transplantation, I agree that the deformity should be corrected first, for the reasons given by Mr. Jackson Clarke, and, in addition, because it is impossible to estimate the part played by the transplanted muscle in increasing the power in a partially paralysed group of muscles, when the estimation of this latter power is rendered impossible by the resistance of a contracted tendon of an opposing muscular group. I agree that exsection of the tendons of the adductors is preferable to simple tenotomy in the great majority of cases of spastic paraplegia, but I prefer elongation of the tendo Achillis to excision in spastic equinus. With reference to arthrodesis of the shoulder joint, I performed this operation four months ago in a case in which all the muscles between the shoulder girdle and the humerus

were completely paralysed. The paralysis was of the acute atrophic variety and was of long standing. The trapezius and serratus magnus were active. Three months after the operation satisfactory movement of the arm was obtained, but in order to minimise the risk of any stretching of the uniting medium between the humerus and the scapula, I am still keeping the parts at rest in plaster of Paris. The opposed surfaces of bone, in this case, were small, on account of the atrophy of the bone from the disease and from disuse. I propose to further treat this case by exercise and massage.

Mr. JACKSON CLARKE, in reply: I am much obliged to our President, Dr. Seymour Taylor, for the valuable remarks he has made upon the behaviour of the stronger groups of muscles in spastic paralysis. Mr. Paton has rightly explained for me that by early surgical interference in cases of infantile paralysis I meant to refer exclusively to preventive measures in the form of simple light instruments, matters that should not be left for the instrument-maker to decide upon. Mr. Laming Evans says that his usual method of dealing with spastic paralysis affecting the leg-muscles is by elongation of the tendo Achillis: in this I am completely in accord with him; only in very severe cases is excision of part of the tendon required.

THE CAVENDISH LECTURE.

Friday, June 24, 1904.

TOWN HALL, HAMMERSMITH, W.

Dr. SEYMOUR TAYLOR, President, in the Chair.

Experiments on the Immunisation against Infection of Operation Wounds.

Professor VON MIKULICZ, of Breslau, delivered the Cavendish Lecture upon the above subject. There was a large gathering of Members and their friends.

REMARKS BY PRESIDENT.

I have now a pleasing duty to perform, viz., to ask you to accord, by acclamation, a vote of hearty thanks to Professor von Mikulicz for his admirable and instructive paper, to which we have just listened with such great interest and advantage. The proposal emanating, as it always does, from the chair, may seem on first thought to be merely a matter of form; and so it really is. But on deeper thought, one easily perceives that this formality is a result of the careful selection by the Council of the West London Medico-Chirur-

interstices. Some of the teeth were loose. The tongue was swollen and abnormally red and raw, with a glazed, "raw beef" appearance (bullock's liver) which is so characteristic a sign of the disease. It presented also one or two bleeding points from which gentle oozing was observed. On the lower lips were two blebs containing dark sanguineous serum. There was great fœtor of breath. The eyelids were slightly puffy, and at their free edges reddened points of ecchymosis were seen.

There were no signs of deep-seated hæmorrhages in the abdominal or thoracic cavities, nor in the internal organs. The fundi were examined by my colleague, Dr. Elliot, who failed to find any signs of hæmorrhage therein.

The urine was free from albumen and sugar and was of normal specific gravity. The bowels were obstinately constipated. The pulse rate was 114, and the respiration 24, although careful stethoscopic examination failed to detect any disease in the heart or in the lungs. The temperature was normal. The blood when examined by the microscope revealed nothing abnormal beyond a slight increase in the leucocytes and a small decrease in hæmoglobin.

The therapeutical zeal of my house physician led him to prescribe Fowler's solution (℥ iii. t. d.) and a mouth wash composed of boracic acid and glycerine. The bowels were relieved by enemata, as it was thought inadvisable to purge the patient.

A diet was ordered consisting of milk pudding, green vegetable, lime juice and potatoes.

On March 10, two days after admission, I carefully examined her, and ordered the arsenical solution to be discontinued; not that I had little faith in this remedy, but that I had more faith in the results of a free allowance of fresh fruit. The same dietary was continued, and in addition the patient was ordered to eat oranges freely, and was allowed as many as six a day.

On March 28 there was so much improvement that the body and limbs were free from the patches of ecchymosis, or they were represented by fading areæ of yellowish or brown discolourations. But she complained of pain and swelling in the hamstring muscles of both thighs, and one patch of pain over the right tibia, which was tender and swollen (scurvy node). Lead and opium fomentations were applied to these painful localities, and the strictly vegetable and milk diet continued. No medicine was prescibed internally. From this date recovery was continuous; rapid at first, and gradual afterwards.

On April 25 a large bruise, the result of a slight blow, was

found to occupy the whole of the dorsal surfaces of the left metacarpal bones, but beyond this most of the hæmorrhagic patches had disappeared.

On April 26, however, the patient complained of severe pains over the inner aspect of the right femoral condyle, and also in the sole of the right foot. There was also deep-seated tenderness in the right calf. Although no discolouration resulted, the pains were so severe and the tenderness so acute, that one could have very little doubt that she did have hæmorrhages, probably subperiosteal, in the condyle and in the tarsal and metatarsal bones, and also between the two layers of the calf muscles. The pains were relieved by Scott's dressing, applied with a firm flannel bandage, the pressure probably exerting the most benefit.

Calcium chloride, gr. xx. three times a day, was prescribed at this period, but was not continued after forty-eight hours. But her strict dietary was maintained, and watercress allowed in addition. Henceforward her improvement and recovery have been uninterrupted, and she is now practically well, though she is still kept in hospital owing chiefly to great loss of muscular strength.

Remarks.—The case is one of great interest chiefly on account of the rarity of true scurvy nowadays. The diagnosis, with the existence of the widespread subcutaneous hæmorrhages, especially in the hamstrings and calf of the right leg, the hæmorrhage from the gums, the condition of the tongue, and the characteristic fœtor, was unquestionable; and was more than confirmed by the rapid recovery under the influence of an anti-scorbutic diet, the chief factor of which was, to my mind, the liberal allowance of oranges. The comparative absence of any drug treatment is noteworthy, for however anxious my house-physician was to prescribe the various remedies which I have mentioned, they were always discontinued after forty-eight hours' trial.

It is sometimes a difficult point to decide where purpura ends and scorbutus begins, and notwithstanding that text-books teach that they are separate and distinct diseases, I am sometimes led to think that they are but varieties of the same blood disorder, and that the symptoms and signs may vary according to the severity of the attack.

Hospital Notes.

By Charles Buttar, M.D.

The three following cases of Glénard's Disease have recently been under the care of Dr. Beddard :—

E. M., aged 26, who had had two children, was admitted under Dr. Beddard on March 31. History of consumption in her family. She had not felt strong since her last confinement nineteen months before. For three weeks before admission she had suffered from severe pains in the "small of the back," and troublesome constipation. The patient was thin and feeble. Her temperature was 100°. The chest was normal. Both kidneys could be felt. On standing up the patient complained of pain in the loins, and a feeling of faintness and giddiness. The abdominal wall was lax and pendulous, and the colon, stomach, liver and kidneys were all found to slip downwards towards the pelvis. Pressure on the lower part of the abdomen relieved the pain. The patient did not complain of vomiting, nor were there pronounced nervous symptoms.

F. O., aged 31, widow, was admitted on April 30 for abdominal pain and attacks of faintness. Family history good She had one child twelve years ago. She described herself as always delicate, and for the last two years she had gradually lost weight and become anæmic. Occasional attacks of vomiting and diarrhœa. A month before admission the pain became worse. It was unaffected by taking food, but usually disappeared on lying down, or with pressure. On getting up in the morning the patient felt faint and giddy, and frequently had attacks of palpitation. She suffered frequently from nausea, but did not often vomit. The patient was pale, but fairly well developed. Nothing abnormal was heard in the chest, except a hæmic murmur. The abdominal wall was lax, and the liver, stomach and kidneys descended when the patient assumed the upright position. Constipation was troublesome while she remained in the hospital. The patient was much relieved by wearing an abdominal belt.

A. G., aged 44, was admitted on April 30, complaining of nausea and dragging pains in the abdomen. The patient had had one miscarriage. There was a history of phthisis in the family. Two years ago she suffered from attacks of nausea and waterbrash. Two months ago, in addition to these symptoms, a persistent dragging pain began in the abdomen whenever the patient stood for any length of time. This was much relieved by lying down. The patient was thin and wasted. She had aortic disease and mitral stenosis, which were well

compensated. The abdominal muscles were very lax, and all the viscera descended from one to two inches on standing up. The kidneys were tender, and descended so far that the hand could be placed above them. An abdominal belt relieved the symptoms considerably.

The following patient was under the care of Dr. Beddard and Dr. Abraham :—

E. D., aged 7, was admitted on April 28 for vomiting and a rash over the body. She had never been strong since birth, and was said to be naturally dull, apathetic, and wanting in intelligence. In July last year she had measles, and two months ago a fit, supposed to be epileptic. Since the latter she had complained of headaches, and had gradually become more drowsy. No family history of phthisis. On admission the child was somnolent, and would not speak, but was irritable when aroused. She vomited when any food was given. The temperature was subnormal, and the pulse 120. The tongue was very furred, and the teeth covered with sordes. There was a red, raised, symmetrical eruption, encrusted with scabs, all over the body, but especially on the dorsal aspect of the limbs. The abdomen was tender, especially in the iliac fossæ. The vomiting became less frequent, but constipation was troublesome. On May 4 there was a "meningeal" cry, and the abdomen was retracted and the legs drawn up. The temperature was raised on the day after admission, and respiration was increased in frequency. Mr. Dunn examined the eyes, and reported that there were miliary tubercles in the choroid of the right eye, and two small marginal ulcers on the cornea. In the left eye there was a disseminated tuberculous choroiditis. In both eyes there was nystagmus, but there was no optic neuritis. One of the skin lesions was removed and showed giant-cell formations. On May 11 the patient had convulsions. On May 12 there was Cheyne-Stokes respiration. Lumbar puncture was performed, and ten drachms of fluid withdrawn. This proved to be sterile. The child became comatose, and died on May 13.

The *post-mortem* appearances were as follows: in the lungs there was consolidation at both apices, and miliary tubercles scattered throughout the substance. The left pleura was adherent. The bronchial glands were enlarged and caseating. There was miliary deposit in the liver, spleen and kidneys. The mesenteric glands were enlarged. There was no tubercle in the peritoneum or intestines. Miliary tubercles were found at the base of the brain and in the sylvian fissures. There was a tubercular nodule in the left temporo-sphenoidal lobe of the brain, and another in the right frontal lobe.

Reviews and Notices of Books.

TUBBY AND JONES ON MODERN METHODS IN THE SURGERY OF PARALYSIS.[1]

THIS book is another evidence of the advance which is being made in specialism. Some years ago the necessity for a volume on orthopædic surgery would have been questioned, but now we have a treatise of over 300 pp. on one branch of orthopædics. We do not wish to cast any reflection on the book, which is excellent in every way, but one must feel that with the multiplication of books and the subdivision of subjects it is now harder than ever for a busy practitioner to keep up with the times.

The names of the authors are sufficient guarantee that the book contains valuable information, and indeed several new methods of treatment of deformities, due to infantile paralysis, are described.

In cases of complete paralysis of the muscles of the elbow, where the hand muscles have escaped, it is recommended to fix the elbow by dissecting out a lozenge-shaped piece of skin over the flexor surface of the joint and uniting the wound so as to flex the joint at an acute angle.

With regard to the performance of tenotomy the author states that in only ·04 per cent. of cases of tenotomy has union failed. They recommend that subcutaneous tenotomy should not be employed for disease of tendons in the region of the knee and of the hip, and that longitudinal incisions should be employed. The most interesting chapter, however, is that which deals with tendon transplantation. Thus in case of paralysis of the extensor muscles of the knee, the biceps and semitendinosus can be brought round and united by means of long silk cords to the tubercle of the tibia. Curiously enough the new insertion of the muscle does not interfere with voluntary movements, since the same muscle can apparently be used for extension or flexion. The silk cords appear to give no trouble, and become encased in fibrous tissue. Another application of tendon grafting is in cases of paralytic talipes calcaneo valgus, when the tendon of the flexor pillius and of the peroneus longus are grafted into the tendo Achillis. Again, in cases of talipes equino varus, the tendo Achillis is split longitudinally and the inner half is divided and attached to the

[1] "Modern Methods in the Surgery of Paralysis." By A. H. Tubby, M.S., F.R.C.S., and Robert Jones, F.R.C.S. London: Macmillan and Co.

tibialis posticus or to the tubercle of the scaphoid, the other half is divided to relieve the equinus. The principle is applied to most of the other joints, and great improvement has resulted in its use.

Another chapter deals with the treatment of spastic paralysis and the good effects of tenotomy and tendon grafting are shown. Reference is also made to paralyses arising from injuries and diseases of nerves and some degeneration of the spinal cord. In fact, we consider the book contains much of interest to every surgeon, and will be particularly useful to those who are making a special study of the subject.

ORTHMANN'S HANDBOOK OF GYNÆCOLOGICAL PATHOLOGY.[1]

This little handbook deals chiefly with the pathological histology of the female genital organs. In the first part of the work the various methods of hardening tissues and of making microscopic sections are described. The rest of the book contains a short description of the macroscopic appearances of the most important morbid conditions of the female genital organs, together with a more detailed account of their microscopic appearances. The seventy-three drawings which illustrate the text are very good. The book may safely be recommended as containing within a moderate compass a very accurate description of gynæcological pathology.

LESLIE THORNE THORNE ON THE NAUHEIM TREATMENT OF CHRONIC DISEASES OF THE HEART.[2]

The aim of this book is to give a short and concise description of the methods of administering the Nauheim treatment in England, so that it may be carried out in the house of a patient by the medical attendant. The author deals in the first place with the action and administration of the baths, demonstrating by means of sphygmographic tracings the characteristic effects of immersion upon the rate, volume, and tension of the pulse, and giving in a concise manner the various indications for altering and varying their strength and frequency. He considers that exercises are a most

[1] "Orthmann's Handbook of Gynæcological Pathology." Translated by C. Hubert Roberts, M.D.Lond., F.R.C.S., M.R.C.P. John Bale, Sons and Danielsson. Price 5s. nett.

[2] "The Nauheim Treatment of Chronic Diseases of the Heart." By Leslie Thorne Thorne, M.D., B.S.Durham. London: Baillière, Tindall and Cox. 1904.

useful addition to treatment in almost all cases, but prefers to leave to the medical attendant the question of the kind of exercises necessary. One cannot help thinking that the value of the book would be enhanced by a short description of these exercises, as it is assuredly written for medical men who have had no previous knowledge of this treatment. A chapter on the selection of suitable cases completes the book, which may be recommended to those for whose guidance it is written.

THE EXTRA PHARMACOPŒIA OF MARTINDALE AND WESTCOTT.[1]

The eleventh edition of this valuable little work is now issued, and should be studied by all who wish to be thoroughly in touch with the advances in modern pharmacy. The book, although somewhat smaller than in former editions, has actually been enlarged by over 100 pages, by the use of a thinner paper. Many of the older drugs and preparations have been omitted, and new sections on surgical dressings, radiology, health resorts and mineral waters now appear. Among the analytical memoranda will be found useful notes on the most reliable tests for analysis of the urine, blood, and the contents of the stomach. Directions for staining the various micro-organisms more commonly met with are also given. Indeed, the whole volume is replete with valuable information, and fully maintains the standard of former editions.

THE ANNUAL REPORT AND STATEMENT OF ACCOUNTS OF THE MEDICAL DEFENCE UNION.[2]

One cannot conceive a stronger argument of the necessity for every medical man becoming a member of a Defence Union than this report, which should be read by all who are considering the advisability of so doing. Over 1,000 cases have been brought before the Council, besides others dealt with by the General Secretary, and with uniform success. The policy of the Society is to deal with all cases involving professional principles promptly, and to take legal action in defence of its members regardless of cost in all matters where, in the opinion of the Solicitor, recourse to the Courts is justified. No case conducted by the Union has been com-

[1] "The Extra Pharmacopœia of Martindale and Westcott." Revised by W. Harrison Martindale, Ph.D., F.C.S., and W. Wynne Westcott, M.B.Lond., D.P.H. Eleventh edition. London: H. K. Lewis. 1904.

[2] "The Annual Report and Statement of Accounts of the Medical Defence Union." London: Adlard and Co. 1904.

promised, and a firm front has ever been presented against those who seek to damage the reputation of members in action at law.

That this policy is the correct one a perusal of the cases in which action has been taken will amply prove.

W. BRUCE CLARKE ON A MODERN HOSPITAL.[1]

Originally delivered as an address before the Abernethian Society, this pamphlet has been revised and enlarged, and now gives a description of a modern hospital, describing the ward unit, its method of building, ventilation, heating, furnishing, lavatories, &c. The linking up of the various units into a whole, with the necessary operating theatres, out-patient rooms, service departments, and the various quarters which comprise the modern hospital, are given in detail. The work should prove useful to Governors and those interested in the management of hospitals.

ST. THOMAS'S HOSPITAL REPORTS.[2]

The medical report by Dr. Edward A. Gates, and the surgical report by Mr. Percy W. G. Sargent, together with the reports from the special departments, comprise the greater part of the volume, which is as usual full of interest. During the year under consideration the new X-ray department was opened, and an important addition was made by the installation of four treatment lamps of the Finsen type. Statistics of the treatment of fifty-two patients are given, the results of which are somewhat disappointing.

An obituary of Dr. William Miller Ord, and various papers by Dr. Toller, Dr. Singer and Mr. W. H. Battle and Mr. Henry Betham Robinson, complete the volume.

STEPHEN PAGET ON "WHAT WE OWE TO EXPERIMENTS ON ANIMALS." "THE CASE AGAINST ANTI-VIVISECTION."[3]

These two small books together make a most fitting answer to the anti-vivisectionist. He and his methods are brought into a very unfavourable light, and the thanks of medical men

[1] "The Meaning of a Modern Hospital." By W. Bruce Clarke, M.A., M.B.Oxon., F.R.C.S. London: Longmans, Green and Co. 1904.

[2] "St. Thomas's Hospital Reports." Edited by Dr. H. P. Hankins and Mr. W. H. Battle. London: J. and A. Churchill, 9, Great Marlborough Street. 1904.

[3] "What we Owe to Experiments on Animals," and "The Case against Anti-vivisection." By Stephen Paget, F.R.C.S. London: The Scientific Press, Ltd., 1904.

are due to Mr. Stephen Paget for the able way in which he has summarised the facts and deduced the arguments against those whose overflowing love for the lower animals might well be used to mitigate the venom they see fit to employ against a certain section of their human brothers.

FISHER ON OPHTHALMOLOGICAL ANATOMY.[1]

This is an interesting book, and the author is to be congratulated upon its production. It consists of two parts, anatomical and clinical, the first of which is divided into nine chapters. Among the subjects therein described and discussed are: "the visual pathways and centres"; "the centres for ocular movements"; "cranial nerves and their nuclei, course and distribution"; "the cervical sympathetic"; "lenticular ganglion"; "cutaneous nerve areas of head and face"; "cerebral topography"—all of which are dealt with in a thoroughly lucid and up-to-date manner. The chapter on "Ocular Movements and Muscles" is especially worthy of notice. The author absolutely rejects the view regarding the capsule of Tenon, that it forms a cup or socket in which the globe, in its various movements, plays as a ball. "Such an interpretation of its function," he says, "appears to me untenable . . . . when it is remembered that the capsule is continuous posteriorly with the fibrous sheath of the optic nerve, and anteriorly is attached, with the conjunctiva, to the eyeball at the corneo-scleral junction."

The clinical part of the volume contains a series of illustrative cases bearing upon the various anatomical facts dealt with in the previous pages, and in the perusal of these cases both neurologists and ophthalmic surgeons will find many instructive and interesting features. We cordially welcome the publication of this volume, as filling a decided want in ophthalmological literature.

GRIMSDALE ON ERRORS OF REFRACTION.[2]

So far as books on Errors of Refraction are concerned, the cry is "Still they come!" Within recent years this department of ophthalmology has been catered for, in a literary sense, to a wonderful, if not superfluous, extent, possibly quite

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[1] "Ophthalmological Anatomy, with some Illustrative Cases." By J. Herbert Fisher, M.B., B.S.Lond., F.R.C.S. London: Hodder & Stoughton, 1904.

[2] Elementary Lectures on Errors of Refraction and their Correction." By Harold B. Grimsdale, M.B., B.C.(Cantab.), F.R.C.S. London: Medical Times, Ltd., 1904.

independently of the presumptive claims and aspirations of the sight-testing tradesmen, of whom so much has been heard of late. In the small volume before us the elementary details of refraction work are dealt with in a readable manner, and the author's views on the best method of correcting hypermetropia are decidedly novel, though not for that reason convincing.

CLIFFORD ALLBUTT'S NOTES ON THE COMPOSITION OF SCIENTIFIC PAPERS.[1]

The perusal of a large number of scientific papers, mostly theses for the M.B. and M.D., has led Dr. Clifford Allbutt to publish this book. It is practically a collection of, and commentary on, "unacknowledged" quotations from papers serving to illustrate the commoner errors of composition. It might be read with advantage, not only by the student, but by many whose days for thesis-writing are over, at least if we are to judge by the style (or lack thereof) which characterises so many of the short publications in our medical journals.

WARD ON CLINICAL STUDIES IN SYPHILIS.[2]

The material of this book is, for the most part, drawn from the author's own clinical experience, and while it gives an admirable account of the disease in its many manifestations, it also brings forth a theory of causation endeavouring to "explain and unify the vast series of facts involved."

LEAF ON THE CLINICAL CAUSES OF CANCER OF THE BREAST, AND ITS PREVENTION.[3]

This is a small book of especial interest to those concerned with the ætiology of cancer, all the conclusions being based on the records of cases admitted to the Cancer Hospital under the care of the author or his colleagues.

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[1] "Notes on the Composition of Scientific Papers." By T. Clifford Allbutt, M.D., F.R.C.P., LL.D. London: Macmillan & Co., Ltd., 1904.

[2] "Clinical Studies in Syphilis." By Arthur H. Ward, F.R.C.S. Medical Times, Ltd. Price 3s. 6d.

[3] "The Clinical Causes of Cancer of the Breast, and its Prevention." By Cecil Leaf, M.A., M.B., F.R.C.S. Medical Times, Ltd. Price 2s. 6d.

THE LIBRARY REPORT.

THAT the Library continues to fulfil its object may be shown by the frequent daily application for books, especially for immediate reference, note being taken of volumes borrowed for however short a time. These applications also afford an indication of the popularity of certain classes of medical literature, and in this respect there are no books more frequently asked for than those relating to hæmatology: this, no doubt, is owing to the recent great advancement in the study of diseases and altered conditions of the blood.

The latest works upon Regional Surgery are also in demand. The Session that is just terminating has, on the whole, been a successful one, as far as the Library is concerned.

HERBERT W. CHAMBERS,
June, 1904. *Hon. Librarian.*

BOOKS RECEIVED.

The Case Against Anti-Vivisection, and What we Owe to Experiments on Animals. By Stephen Paget. London: The Scientific Press, Ltd., 1904.

Notes on the Composition of Scientific Papers. By T. Clifford Allbutt, M.D., F.R.CP. London: Macmillan and Co., 1904.

Ophthalmological Anatomy, with some Illustrative Cases. By J. Herbert Fisher, M.B., B.S.Lond., F.R.C.S. London: Hodder and Stoughton, 1904.

Elementary Lectures on Errors of Refraction and their Correction. By Harold B. Grimsdale, M.B., B.C.Cantab., F.R.C.S. London: The Medical Times, Ltd., 1904.

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The Clinical Causes of Cancer of the Breast, and its Prevention. By Cecil H. Leaf, M.A., M.B., F.R.C.S. Westminster: Archibald Constable and Co., 1904.

THE POST-GRADUATE COLLEGE.

By The Dean.

The Summer Session commenced on Monday, May 9, and the lectures have been well attended. During the past three months 74 Post-graduates have attended the Hospital Practice, in addition to the Life Members, who now number 64. Amongst the former have been 10 officers in the Naval Medical Service, 3 in the Royal Army Medical Corps, and 2 in the Indian Medical Service, as well as 15 from the colonies and abroad.

Special classes have been held in the following subjects: Throat and Ear Diseases (1 class), Ophthalmoscopy and Retinoscopy (2 classes), X-rays (2 classes), Anæsthetics (1 class), Intestinal Surgery (2 classes), Clinical Examination of the Blood and Urine (1 class), Bacteriology (3 classes), Tutorial Medicine (1 class).

For the convenience of medical practitioners in the neighbourhood of the College (who are unable to take out any set course), but who wish to do some practical work in the Pathological Laboratory, including the examination of Blood and Urine, it has been arranged that instruction will be given at any time convenient to the practitioner. A fee of £1 1s. will be charged for six visits of one hour each. Members of the Society are reminded that the Laboratory undertakes clinical investigations of all kinds on payment of a small fee. A list of charges and directions for sending specimens to the Laboratory can be had on application to Dr. Candler.

The Annual Conversazione of the College was held on Wednesday, April 20, in the Out-patient Hall of the Hospital. The guests were received by Sir Alfred Cooper and the Dean. The entertainment included 'cello solos by Popper, Mr. James Messias, songs by Mr. Beckett, Mr. Algernon Clarke's quartette, and a cinematograph. There were also exhibitions of X-rays, High-Frequency Currents and Radium, Surgical Instruments, and Dowsing Radiant Heat Apparatus. Notwithstanding the fact that all the lights were extinguished in the Concert-room during the early part of the entertainment, a most enjoyable evening was spent, about 150 gentlemen being present.

We have to congratulate Messrs. A. B. Cox, G. E. Hamilton, and J. McCutcheon, on obtaining commissions in the Royal Navy Medical Service; also Dr. T. A. Green (late Clinical Assistant in the Department for Medical Diseases of Children) on being appointed Surgeon to Out-patients at the Bristol Royal Hospital for Sick Children and Women.

The Annual Dinner of the College has been fixed for Satur-

day, June 25, and Prof. von Mikulicz has promised to be the guest of the evening. The chair will be occupied by Dr. J. B. Ball.

The following is a list of Post-graduates who have attended the practice of the West London Hospital during the last three months. An asterisk is placed against the names of those who are Life Members of the Post-graduate College.

*L. H. Armstrong (Ripon).
Ali Akbar (Teheran).
W. S. Alexander (Napier, C. Colony).
*D. Arthur, M.D. (Shepherd's Bush).
W. H. Anderson (Boyle, co. Roscommon).
Thos. Archer (late R.A.M.C.).
G. Arthur (West Ealing).
*A. Baldock (Earl's Court).
W. H. Bailey (Southall).
S. M. Banham (West Acton).
*W. E. Barton (Streatham).
*G. J. Bagram (Paddington).
A. Geo. Beale (Kensal Rise).
Fleet-Surgeon H. B. Beatty, R.N.).
S. H. Belfrage (Montague Square).
*Dep. Ins.-Gen. R. Bentham, R.N.
Surgeon E. R. Bickford, R.N.
*R. D. Brinton (S. Kensington).
F. C. Bryan (Bayswater).
R. Gavin Browne (Weymouth).
C. H. Browne (Swindon).
*H. F. Browne (Thames Ditton).
*W. M. Burgess (Harlesden).
*M. G. Cadell (Bayswater).
*Capt. Carmody R.A.M.C. (ret.).
*Major E. R. W. Carroll, I.M.S.
P. T. Carpenter (Leinster Square).
*H. W. Chambers, Hon. Life Member (Shepherd's Bush).
Capt. E. S. Clarke, R.A.M.C.
Perez Chaumont (Cuba).
Capt. Oswald Challis, R.A.M.C.
F. W. Clark, M.D., D.P.H. (Hong Kong).
*Lt.-Col. Clutterbuck (Newcastle).
*J. E. Coulson (Fulham).
Surgeon A. B. Cox, R.N.
B. Cruikshank (Nairn).
J. S. Curgenven (Bayswater).
G. G. Davidson (West Kensington).
Frank Dendle (Isleworth).
E. A. DeRavine (Melbourne).
*L. Dobson (Kensington).
H. Dyer (S. Croydon).
J. Eldon (Santo Domingo).
C. W. Emlyn (Bayswater).
*A. St. Aubyn Farrer (Paddington).
*W. H. Fitzmaurice (Dunmanway).
H. Andrew Foy (Cawnpore).
Francis C. S. Forbes (New Zealand).
*Fleet-Surgeon A. M. French, R.N.
W. E. Fry (Hammersmith).
L. D. Gamble (Abergavenny).
F. Gans (Bohemia).
*D. Gault (New Zealand).
*H. M. Gay (Southampton).
S. F. Gibbs (S. Hampstead).
G. F. Gill (St. Bart's.).
Edmund Gonin (Burstow).
*A. J. Grant (West Kensington).
*W. Grantham-Hill (Chiswick).
Surgeon E. R. Grazebrook, R.N.
*C. H. Haines (Kensington).
Surgeon G. E. Hamilton, R.N.
*C. S. Hancock (Leytonstone).
*W. Allen Harmer (Tonbridge).
A. Harrison (Yeovil).
*N. Heard (Chiswick).
Major Hendley, I.M.S.
A. H. Holmes (Barton Abbey).
F. J. Ingoldby (W. Australia).
*W. C. James (Kensington).
Dep. Ins.-Gen. C. James, R.N.
P. W. James (S. Kensington).
*Capt. Johnston, R.A.M.C. (ret.).
R. A. Johnston (Tempo, Ireland).
W. P. Kennedy (Kingstown).
*R. A. Kirby (Westminster).
*W. B. Kirkaldy (Kensington).
John Kippax (Blackpool).
Capt. O. Langston, I.M.S.
M. E. Leicester (Bayswater).
*T. M. Legge (Temple).
*T. Ligertwood (Chelsea).
C. A. Lees (West Ealing).
*J. Lynes (W. Kensington).
*A. Barclay Lyon (Hammersmith).
Norman Macdonald (Harlesden).
Hector K. Macdonald (Barnsbury).
*G. Maguire (Richmond).
*W. Hooper Masters (Barnes).
*E. D. Macdougall (Walton-on-Thames).
*J. B. Mackay (London).
Fleet-Surgeon H. W. Macnamara, R.N.
Surgeon J. MacCutcheon, R.N.

*H. J. McNickle (Vauxhall).
*D. F. Maunsell (S. Kensington).
P. W. Mason (Wymondham).
*B. W. Mudd (St. Pancras).
Z. Mennell (Kensington).
W. Newlands (Dunedin).
W. Nolan (Kensington).
*W. Norbury (London).
*W. R. Oliver (New South Wales).
*H. M. Page (Kensington).
H. Compton Parsons (W. Hampstead).
Chas. J. Patton (Montreal).
W. Harland Peake (Hampstead).
*A. F. Penny (Chelsea).
*R. D. Pollock (Acton).
*A. Renny (Southampton).
*A. Rideal (Twickenham).
*Patrick Robertson (Canada).
Lt.-Col. Robinson (Scots' Guards).
*A. Tait Robinson (Hyde Park).
*Neil Robson (Bayswater).
*F. E. Rock (Hammersmith).
*T. Mackay Ross (Fulham).
*Fleet-Surgeon J. M. Rogers, R.N.
*Lt.-Col. Silcock, I.M.S.
Allan Simpson (Chiswick).
*G. A. Garry Simpson (Acton).
*A. Ross Sinclair (Parson's Green).
*W. Slater (Epping).
B. Stendahl (Bjugn, Norway).
Donald Steel (W. Hampstead).
*H. H. Sturge (Maida Vale).
*E. Swain (Hampton Hill).
F. C. Tothill (Staines).
C. E. Treble (Toronto).
Alex. Urquhart (Shepperton).
Fleet-Surgeon S. W. Vasey, R.N.
*L. A. Walker (Notting Hill).
W. W. Walker (Kensal Rise).
*H. W. Walter (Brentford).
R. T. Wells (Pollockshields).
G. T. Williams (Fishguard).
*J. Williamson (Putney).
J. A. Wilson (Springburn).
*A. P. Woodeford (Shepherd's Bush).

NOTES ON NEW PREPARATIONS, &c.

The Manhu Food Company, Ltd.—This company has forwarded for inspection and trial samples of their starch-changed preparations for use in cases of diabetes, in the shape of biscuits, bread, flour, macaroni, porridge, &c. The essential feature in these food-stuffs is the retention of the carbohydrate, but in such a changed condition that the manufacturers claim that not only can they be most easily digested and assimilated, but that they also do not cause an increase in the output of glucose by the urinary tract.

These two points, it is hardly necessary to observe, are the essentials of a diabetic dietary. The well-known gastric and intestinal troubles of diabetics, and the wasteful elimination of glucose, must be prevented or at least minimised.

In these foods the makers essay the task of obtaining preparations to fulfil the above conditions and from trials we have made there can be no doubt that they have gained a very considerable measure of success. Treating the same case by as near an approach to a carbohydrate-free diet, and by the "Manhu" diet respectively for two successive periods the decrease in the output of sugar was almost identical, whilst the general condition of the patient was unquestionably superior when treated by the Manhu Foods.

A series of extended observations upon cases of glycosuria of different types and degrees of severity would be necessary

before speaking more certainly than we have done in these remarks upon the general applicability of the foods to all cases of glycosuria.

One further point in conclusion; the foods are palatable and are taken readily, and this is a pleasing feature to record in connection with foods for diabetics. We should be interested to learn from our readers any results they may have noted from the use of these preparations.

Miscellaneous Extracts.

PECULIARITIES OF TEMPERATURE IN APPENDICITIS.—W. T. Rostowtseff remarks that in this disease the temperature is very apt to show features which are unusual in other inflammatory visceral affections. Thus in about one-third of all cases operation reveals pus, while the temperature has been low or falling. Several authors have observed that in appendicitis the difference between rectal and axillar temperature may reach 1° C. to 2·9° C. (1·8° F. to 5·2° F.), while in other diseases this difference amounts to 0·5° F. to 1°F. Again, in severe forms of appendicitis there is often a disproportion of pulse and fever —a fall of temperature being accompanied by a rise of the pulse-rate. The highest daily temperature in appendicitis is frequently seen at a later hour than in other diseases, oftenest about 9 to 10 p.m. instead of 4 to 6 p.m. This shifting of the maximum is considered by the author as a *signum mali ominis*. —*Vratch*, October, 1903; *American News*, February, 1904.

THE ALBUMINURIA OF PUBERTY.—F. Lommel had the opportunity of examining the urine of 587 young persons over a period of several years at about the age of puberty. Of these cases 111, or 18·9 per cent., showed a positive albumen reaction at least once. The test used was acetic acid and potassium ferrocyanide. The albumen was usually intermittent in its occurrence. It consisted mainly of nucleo-albumen, with globulin. The amount rarely exceeded 1 per cent. The cause of this condition is perhaps partly due to poor condition of the blood, and partly to a mild degree of cardiac insufficiency. The new formation of blood and growth of the heart do not keep pace with the rapid development of the rest of the body. The albumen of puberty may be diagnosed from that of nephritis by the absence of epithelial and granular casts, by the presence of a periodicity in the occurrence of the albumen, and by the absence of ophthalmologic signs of nephritis

Left-sided hypertrophy of the heart and increased arterial tension may occur in either condition.—*Deut. Archiv f. Klin. Med.*, Bd. lxxviii.; *American News*, February, 1904.

TREATMENT OF ACUTE GASTRO-ENTERITIS OF INFANTS.—Hutinel points out the following main indications in the treatment of acute gastro-enteritis of infants: (1) Withdrawal of the source of infection; (2) antisepsis of the intestinal tract; (3) ingestion of water to supply that which is lost. The first indication is met by withdrawing milk entirely, allowing the patient only boiled water in small quantities, frequently repeated. This should be given cold, or even iced, if there is a tendency to vomit; warm or hot if there is a tendency to coldness in infants less than a year old. After twelve or fifteen hours, when the contents of the intestines have been evacuated and the vomiting has stopped, food may again be given cautiously. If the symptoms persist, it may be necessary to wait twenty-four, thirty-six, or even forty-eight hours. When first returning to a milk diet, it should be given with an equal quantity of water, and gradually increased until the normal amount is again reached. In older children buttermilk may be allowed. If the vomiting and general symptoms persist for a long time, lavage of the stomach may be performed. Small doses of calomel should be given early in the attack. Intestinal antisepsis may be favoured by the use of high enemas of normal salt solution. This should be performed once or twice a day while the stools remain fœtid. Hutinel has not obtained favourable results from the administration of salol or other antiseptics. Subcutaneous injection of normal salt solution has produced good results in extreme cases. The use of hot baths in those cases associated with high fever has produced good results. These may be repeated every three hours or four hours, and should last about ten minutes. Pain in the abdomen may be combated by hot applications to the part.—*Journal des Practiciens; American Medicine*, February, 1904.

POST-PARTUM INFECTION OF THE UTERUS.—Chief among the bacteria of puerperal infection are the streptococcus, gonococcus, colon bacillus, and the saprophyte. The saprophyte never attacks the living cell or invades the deeper structures of a healthy organism. The streptococcus is the most deadly of these germs, and in contradistinction to the other germs, it may and does proliferate in living tissues, and is the only one which jeopardises life, though the others may produce invalidism. Hence the importance of distinguishing between streptococcus infection and that of other germs, and this can be done positively only by microscopic investigation.

But when this cannot be had, clinical evidences must be depended upon, and it may be stated as a rule that putrid infection is characterised by high temperature, slow pulse, and foul odour; whereas in streptococcic infection there is no odour in the earlier stages, and the pulse is markedly accelerated according to the virulence of the infection. Digital examination of the uterine cavity will also give valuable evidence. In putrid infection the uterine cavity contains *débris*, whereas in streptococcus infection the mucosa may be perfectly smooth. According to D. T. Gilliam the normal death-rate for puerperal infection is about 1 in 100, but in streptococcal infection alone it is 1 in 25. The safeguards against infection are auto-sterilisation of the genital tract, the uterine mucosa, and the massing of germicidal leucocytes beneath the epithelium.—*American Journal of Obstetrics; American Medicine*, February, 1904.

Röntgen Ray Necrosis. — Clarence E. Skinner reports two instances in which pronounced necrosis and sloughing of tissue occurred long after a prolonged use of the Röntgen rays. The noticeable features in the first instance were: (1) depth to which the original necrotic process extended; (2) "tanning" and excessive proliferation in spots of epithelium of the new skin that was exposed by the peeling of that which had been browned directly by the ray; (3) cessation of the pain so soon as the necrotic tissue had separated; (4) favourable effect of the galvanic current in hastening the healing process after the necrotic tissue had sloughed; (5) appearance of an area of necrosis five months after the last Röntgen ray application, in a region which had previously exhibited no evidences that such injury had been inflicted. In the second instance the most marked feature was the appearance of an area of necrosis six months after the last Röntgen ray application, in a region which had previously exhibited no evidence that such injury had been inflicted. The histories of these two cases constitute a warning against exposing a patient to the Röntgen rays with even a moderate degree of frequency through long periods of time, no matter how well they seem to bear them at first.—*Medical News; American Medicine*, February, 1904.

Colopexy in Prolapsus Recti.—J. Rotter prefers colopexy in extensive rectal prolapse to resection, as the latter presents considerable danger, may leave strictures at the point of operation, and is followed by relapse as often as the former. When colopexy is performed by suturing two serous surfaces together, the union cannot of necessity be very firm. To produce good fixation he sutured the rectum in one case

to the muscles of the abdominal wall, bringing it through the peritoneal incision; in another case he sutured the sigmoid flexure to the cellular structures of the false pelvis. In both cases the final result promises to be very good.—*Deut. Med. Woch.*, 1903; *American Medicine*, February, 1904.

THE ANNUAL CONVERSAZIONE.

THE Annual Conversazione was held in the Town Hall, Hammersmith, after the delivery of the Cavendish Lecture, and was attended by a large number of members and guests invited by the President and Council. The body of the hall and adjoining rooms were occupied by the exhibitors, who succeeded in giving a most attractive display of their respective novelties. This was enhanced by the floral decorations which surrounded the platform, from which Mr. Algernon Clarke's band gave musical selections at intervals. As usual light refreshments were served, and everything passed off most successfully, thanks to the admirable arrangements and supervision of Mr. John Pardoe, the Editorial Secretary, who must be heartily congratulated on the success of this, the first Conversazione under his care. The following is a full list of the exhibits:—

The Aliôné Co. (Knight's Hill Road, West Norwood).

This exhibit comprised many novelties in the dressing of infants and children. The Aliôné Patent Baby Clothes are made to be put on as one garment in three minutes without turning baby or putting his arms through armholes. They are laid out flat, fastened together, baby laid on them, and in three minutes he is in them completely dressed. *No pins.* The long sleeves are easily turned back for vaccination. The Invalid Gown is on the same system. Also any part can be uncovered without disturbing any other part. Whole sets of clothes for men or women are made on the same principles. The "Dress Me Quickly" for short-coated babies, is put on all in one and a-half minutes. The "Dress Myself" for older children enables them to dress themselves quickly and without assistance. The "Ark of Safety" Cot saves baby from the danger of a fall. It is in the shape of an ark. Gold, silver, bronze medals and diploma have been awarded to this firm.

Messrs. Allen and Hanbury (48, Wigmore Street, W.).

This well-known firm had a very attractive display, which included Aseptic Hospital Furniture in Phosphor Bronze, German Silver and Enamelled Steel. All the above were made in the London factory in Weymouth Street, and are guaranteed the finest possible quality. Phosphor Bronze is coming more and more into use. The advantages claimed for it are: It is very durable and hard, being almost as durable as steel; it will not rust, has no white enamel to chip off, always looks bright and clean, and wears the same colour all the way through. Dr. Russell's Pocket Urine Test Case. This is a handy

little form of test case, which can be carried in the pocket quite safely, and which contains everything necessary for immediately testing the urine at the bedside. Luy's Segregator; Pozzi's New Abdominal Retractor; A Portable Steriliser, heated by electricity; Dr. Stack's Patent New Dressing Steriliser; An Aseptic Glass Syringe, especially made for injecting cinnemate, &c.; Killain's Set of Instruments for the Nose; A Portable Electric Lamp for Medical and Surgical work, which is also useful as a reading lamp; New Aluminium Universal Splinting; Dr. G. Herschell's Stomach Washing Apparatus and Rectal Oil Douche; A New Blood-Testing Case, by Dudgeon and Seligman. Tallquist's Hæmoglobin Scale, for which Allen and Hanbury's have been appointed sole agents in the United Kingdom. In addition many other articles were shown, which fully maintained the reputation which this firm has gained for excellence of workmanship.

Messrs. Arnold and Sons (West Smithfield, E.C.).

Among the exhibits of this well-known firm we noticed a New Needle Holder, Leaf's Modification of Hagedorn's; Bozzi's Uterine Dilator; also Frommer's Modified Bozzi's Dilator with eight blades; Kocher's Stomach Clamp Forceps; Bercut's new Surgical and Dental Drill; Aseptic Operators' Naso-Oral Masks, in two patterns, by H. Macnaughton-Jones; Prof. Walcher's eight-bladed Uterine Dilator; Hartmann's Intestine Clamp Forceps, with long slender blades; Mayo Robson's Stomach Clamp Forceps; Cleveland's Forceps Needle; Botey's Aural Mirrors in three sizes; Improved Glass Laryngeal and Post-nasal Sprays; Burgess' Aseptic Operation Cap; Professor Killian's Instruments for Bronchoscopy, Œsophagoscopy and Tracheoscopy; also Professor Killian's Demonstrating Phantom; Lasin Pencils for preventing the steaming of mirrors; Janet's Glass Urethral Irrigator; An Improved Insufflator with metal pump and straight and curved vulcanite pipes; An Improved double glass nasal spray; Feldbausch's Silver Nasal Dilators; Lumsden's Improved Nasal Dilators; Jansen's Bone Nibbling Forceps, curved and double curved; Orton's Improved Vaccinator; Lane's Tissue Forceps; Professor Luy's Urine Segregator; Cheatle's Gallstone Scoop; Edgar's Broad-Ligament Clamp Forceps; An Improved Macphail's Needle Holder with curved jaws for curved needles; Riault's Tonsil Punch Forceps; Peritoneum Forceps, by Professor Mikulicz; Childe's Ligature Forceps; An Improved Temperature Chart Holder; Kollmann's Anterior and Posterior Urethral Dilators; Arnold and Sons Patent Tonsil Guillotine; A Patent Nickel Plated Box for sterilised dressings, by W. Bruce Clarke; Arnold and Sons new Patent Hypodermic and Antitoxin Syringes; A general collection of the most modern Instruments for Eye, Ear and Nose, forming in all a most interesting and instructive display.

Messrs. John Bale, Sons and Danielsson, Limited, (83-89, Great Titchfield Street, W.)

It is evident by the number of visitors this exhibit attracts that the firm know what is of interest to the profession. Here every stage in the production of a magazine or book, from its inception to the completely finished work, can be seen; and to one who is requiring the services of publisher, printer, artist, photo etcher or bookbinder, all these departments are of paramount interest. The volumes exhibited are in themselves evidence of the excellent way in which this old-established house—now in existence over a century—continue to turn out their work. From their new publications we desire to mention three especially, one by Mr. Worth, on "Squint, its Causes, Pathology and Treatment," which is most excellently got up, as regards type, paper and binding, and is really a handsome volume; "The Elements of Kellgren's Manual Treatment," by Dr. Cyriax, is profusely illustrated, no effort apparently being spared to ensure its success so far as excellence of work can contribute to this end; the third is a translation of "A Handbook of Gynæcological Pathology," by E. G. Orthmann. Those who know the German edition will see how

greatly it is improved upon by the way in which the illustrations have been reproduced; this small volume ought to be a great success. For many years past we have remarked on the excellence of this firm's productions, and the present year is no exception in this respect. We observe they are making quite a feature of Tropical Literature, and the *Journal of Tropical Medicine* is now being issued fortnightly instead of monthly, as heretofore. The beautiful illustrations done for the New Sydenham Society's Atlas are equal to anything of the kind we have ever seen, and we can only repeat our former remark on this enterprising firm: "We are safe in saying that nothing can surpass the best, which is the only term applicable to the work done by this firm."

The Blickensderfer Typewriter Company (9, Cheapside).

The Blickensderfer Typewriter Co. are showing their well-known No. 5 and No. 7 machines, which are specially suited for a doctor's requirements. Specially neat leather travelling cases, with provision for carrying all stationery required, have been designed and marketed by the Blickensderfer Co., so the machine complete, with paper, envelopes, postcards, &c., &c., can be had in new leather travelling case, which has the outward appearance of a gentleman's dressing case, and the total weight of which does not exceed 12 lbs.

Messrs Burroughs, Wellcome and Company (Snow Hill Buildings, E.C.)

Messrs. Burroughs, Wellcome and Co.'s exhibit is typical of the care for detail associated with this firm. The wide range of products affords an excellent selection for the physician. That "Tabloid" products represent modern pharmacy at its best is common knowledge, that they represent it so fully is a fact that is here presented with undeniable force. There is "Tabloid" Blaud Pill, as ingenious in conception as it is satisfactory in performance, whether judged from a pharmaceutical or a clinical standpoint, or from both; "Tabloid" Cascara Sagrada, in which are concentrated the virtues of the true and matured bark; "Tabloid" Hypophosphites Compound, "Tabloid" Easton Syrup and "Tabloid" Chemical Food, presenting the essential ingredients of the respective syrups permanently, pleasantly and portably. There are the rapidly soluble "Tabloid" Hypodermic products, which render the preparation of fresh, aseptic, reliable solutions a matter of a moment, and which, with "Tabloid" ophthalmic products, exhibit the accuracy and perfection of high pharmacy. "Hemisine" is the firm's latest achievement in the realm of animal substance medication, in which Burroughs, Wellcome and Co. have held pre-eminence from the first. "Hemisine" is an active principle of the suprarenal gland and possesses the important advantage of being presented in a dry, stable condition. "Tabloid" Thyroid Gland Substance also claims attention as a product to which this gland largely owes its reputation as a therapeutic agent. "Soloid" products are also exhibited. They have made the carrying of antiseptics, local anæsthetics, test chemicals, &c., a matter of comfort and convenience, and the preparation of fresh, accurate solutions a thing of sureness and celerity. Equally interesting are "Enule" Products, which have introduced accuracy and efficiency into rectal medication and ensured ease for the administration and certainty in the retention of suppositories. Of these, "Enule" Glycerine, remarkable for its quality and percentage of medicament and for its permanence even in hot weather, is a notable example. An array of fine chemicals, scale preparations, alkaloidal salts, &c., issued under the title of "Wellcome Brand Chemicals," is convincing proof that B. W. & Co. are awake to the needs of the profession for chemicals, &c., of the highest purity.

Messrs. Brand and Company, Limited (11, Little Stanhope Street, Mayfair, W.

The reputation of this firm for dainty specialities for invalids is world-wide, and their display on this occasion fully maintained their standard of excellence.

Among these were:—Essences of Beef, Mutton, Veal and Chicken, consisting of the juices of the finest meats, extracted by a gentle heat, without the addition of water or any other substance. Concentrated Beef Tea, Mutton Broth, Chicken Broth, containing all the soluble elements of the best meats. Meat Juice: The essential feature of which is the juice of the finest English meat in its natural state, containing the albumen uncoagulated, together with the other nutritive properties, ready for immediate assimilation. Digestive Meat Biscuits: Specially prepared from Whole Wheat Meal and the extractive fibrous constituents of meat. Savoury Biscuits: Of delicate flavour, suitable for luncheon. Invalid Mock Turtle, Ox-tail and Gravy Soups, Mutton, Veal and Chicken Broths. Invalid Turtle Soup and Turtle Jelly: Prepared with great care expressly for invalids from the finest fresh West India Turtle. Albuminous Essence of Beef, consisting of the juice of the beef, with the addition of a portion of albuminous, fatty and fibrous elements: Beef Tea Jelly, Mutton Jelly, Chicken Jelly: Delicate preparations, forming a pleasant change in the invalid dietary. Savoury Meat Lozenges: For invalids and travellers. Beef Bouillon: A nutritious and palatable beverage made from the finest materials in a cheap and portable form. Calves' Foot Jelly: Plain Lemon and Orange. Ivory Jelly: Prepared expressly for invalids, and guaranteed pure. Also unsweetened for diabetes. Brand's Fever Food, for travellers and settlers in tropical climates where fever is endemic. Composed of essence of beef, cream, and yolk of eggs. Brand and Co.'s Peptone Preparations: Beef, Mutton, Veal, Chicken, Potted Meats and Soups of all kinds. The A1 Sauce: a fine tonic and digestive. Beef Tea Tabules: For instantly making a cup of nutritious and savoury beef-tea. Packed in boxes containing twelve tabules.

Messrs. Callard and Co. (65, Regent Street, London).

The display of this firm comprised New Starchless and Sugarless Preparations to supersede the old repulsive gluten foods. Among the preparations shown were Starchless Breads, Cakes, Biscuits; Sugarless Marmalade, Chocolate, Fruits, Jellies, Jujubes, and Beverages, offering to the diabetic sufferer a considerable variety in his diet.

Messrs. Thomas Christy and Co. (4, 10, and 12, Old Swan Lane, Upper Thames Street, E.C.).

Messrs. Thomas Christy and Co. showed on their stand several attractive novelties, among which were:—Velvril: A new film dressing for wounds —can be boiled or sterilised by any recognised method; being transparent a wound dressed with Velvril can be examined at any time without removing the dressing. It is applied with a solution of acetone, which is strongly antiseptic. The wound is simply painted with the solution and the film applied. Electric Diagnostic Lamp: A handy little instrument — can be carried in the coat pocket without inconvenience. It is fitted with a mirror for throat work, and is serviceable for ear, nose, throat and vaginal examinations. The battery can be re-charged by the doctor from time to time, the re-charging takes but two or three minutes. Aseptic Sheet: This sheet can be boiled for several hours without injury—it is absolutely waterproof. There are three aluminium rods that can be fitted into three seams that pass across the apron. By twisting these rods the sheet can be adjusted to any part of the body. For obstetrical work it is invaluable. Any amount of irrigation can be carried out without any fear of soiling the bed clothes, or the clothes of the patient. Antidolorin and Narcarsol: Respectively for local and general anæsthesia. The former is fitted with a nozzle that will not choke, and the container of the latter is divided into grammes. Antrophors: These are gelatine-coated spring bougies, the gelatine of course being medicated either to the doctor's own formula, or to stock formulas. The great feature in using Antrophors for urethritis is that the medicament gets back into the folds of the urethra, where the mischief is generally seated.

Messrs. Cooper and Company (80, Gloucester Road, South Kensington and 24, Sloane Street, Belgravia, S.W.)

An attractive display was made by this enterprising firm. Pure "Oxycarbonated" Mineral Waters:—"Oxycarbonated" waters are a great improvement on the ordinary carbonated mineral waters, the more or less lowering effects of carbonic acid being counterbalanced by the stimulating properties of oxygen. These waters are aerated with carefully purified carbonic acid and oxygen gases by patent process, and are prepared with organically pure distilled water. Messrs. Cooper & Co. have erected the most modern machinery for the manufacture of aerated waters, and special apparatus for the production of pure distilled water. "Globenaris" Table Water, a pure, sparkling, and refreshing water. "Globenaris" Water is distilled water aerated with oxygen and carbonic acid gases by Cooper & Co.'s patent process. It is especially adapted for general use, being pleasant, refreshing, and not "lowering." "Globenaris" Water is beneficial as a mild liver stimulant, and as a corrective where there is a rheumatic or gouty diathesis. Supplied in porcelain-lined syphons and bottles (quarts and pints). Tonic "Globenaris," Magnesia, Soda, Seltzer, Potash, Lime Water, Vichy Water, Oxygen Water, &c. The above are supplied in porcelain-lined syphons, thereby avoiding all possibility of metallic contamination. "Oxygen" Water:—Distilled Water aerated with pure oxygen gas. Supplied in bottles and splits. Aerated Waters prepared in any strength or combination, as desired by the medical profession. Emulsio Ol. Morrhuæ c Lactophosph. (Bridges).—Contains pure cod-liver oil with lactophosphates. "Globena" Meat Juice:—Prepared from the finest English beef, the albuminous principles being entirely retained. "Globena" Beef Essence:—"Globena" Chicken Essence:—"Globena" Mutton Essence—"Globena" Turtle Essence—"Globena" Veal Essence:—These essences consist solely of the juice of the finest meats. Supplied in glass jars. "Globena" Pure Beef Tea (Concentrated). "Globena" Meat Lozenges.—A concentrated meat lozenge of delicate flavour, furnishing in the smallest possible bulk the maximum of nourishing and easily digestible food. "Globena" Beef and Malt Wine.—A nutritious and strengthening tonic wine. "Globena" Grape Jelly.—An agreeable and nutritious jelly prepared from grapes. Supplied in glass jars. "Cachoids":—Very flexible, tasteless, and readily soluble wafer capsules. They form an efficient means of administering nauseous and insoluble powders, and those the action of which is impaired by solvents; as "Cachoids" of Quinine, Antipyrin, Salipyrin, Sulphonal, Phenacetin, Bismuth, &c. "Globules" (soft gelatin capsules.)—"Globules" contain accurate dosage of medicament, are readily soluble, and from their shape and flexibility are easily swallowed. Cascara Sagrada, Creosote, Guaiacol, Cod-Liver Oil, Castor Oil, Ichthyol, Pepsin, &c. "Capsules" (Glass):—Encased in cotton-wool and silk. Amyl nitrite, Bromide of Ethyl, Iodide of Ethyl, &c. "Liquor Quininæ Salicylatis":—This preparation contains in each fluid drachm one grain of the natural Salicylate of Quinine. It has given excellent results in the treatment of gout, rheumatism, migraine, malarial fever, and allied complaints. The solution of this Salt of Quinine is more rapidly and effectually absorbed than when administered in powders, pills, or suspended in a mixture. "Oxycarbonated" Fluid Magnesia:—This form of administration of a popular medicament combines all the advantages of the older preparations of fluid magnesia with those accruing from the process of oxycarbonation, which are referred to under our "Oxycarbonated" Waters. Ext. Sennæ Leguminæ Liq.:—A mild aperient. Pastil Menthol, Co.—These pastils contain cocaine, menthol, and red gum.—Useful in cases of inflammation of the mucous membrane. "Pastil Heroini": $\frac{1}{14}$th grain, &c. "Sinapine Tissue, or Mustard Leaflets":—This is a convenient form of mustard plaster, as it is easily applied, quick in action, and does not blister the skin. Syr. Glycerophosph. Co.:—The Glycerophosphates have a marked stimulating power on the nervous system, and a distinct accelerating influence

on the digestive powers, improving the general nutrition. Elixir Terpini et Heroin Co. :—Heroin exerts a powerful action on the respiratory organs, acting as a specific in all forms of cough. Syr. Heroini Co. Tinct. Kolæ Co. Sterilised Dressings (Cooper and Co.):—Sterilised Gauzes, Lints, and Wools. Each packet is wrapped in parchment-paper and placed in an air-tight, dust-proof cartoon. Oxygen Gas (Pure) for Inhalation.—In cylinders of 10 feet, 20 feet, and upwards. Fitted with special reducing valve.

Mr. F. Davidson (140, Great Portland Street, London, W.).

Mr. F. Davidson, with his usual energy and enterprise, showed some highly interesting novelties in addition to his well-known specialities. There was a most ingenious model showing the physiology of accommodation of the eye; invaluable for purposes of demonstration. An electric otoscope by Dr. J. B. Ball giving instant illumination of the membrana tympani, small and portable. Models of the larynx and ear, with coloured drawings of various diseases. Trans-illumination tent, illuminated and revolving test types. There was also on exhibit Mr. Davidson's double optometer, a simple and convenient means of testing with lenses.

Down Bros., Ltd. (21, St. Thomas Street, Borough, S.E.).

In this stand was shown a selection of surgical instruments, including many new models recently introduced. We especially noticed a Surgical Hand Motor for Drills, &c., &c., which was beautifully finished; indeed, the whole exhibit was fully up to the standard of this celebrated firm.

Duncan Flockhart and Co. (Edinburgh and London. Edinburgh Address: 104, 106, 108, South Cannongate. London Address: 143, Farringdon Road, E.C.).

We were greatly interested in the exhibit of this firm, which included many preparations, well worthy of attention. Among these were the Anæsthetics: —Chloroform, Duncan's Pure, S.G., 1·490. Prepared entirely from British Ethylic Alcohol. Practically nondecomposable under any circumstances. Chloroform, Duncan's Methylated S.G., 1·490. Prepared entirely from Methylated Spirit. Chloroform, Blue Label. Prepared from Acetone. Ether Purificatus (Duncan's S.G., ·720). Manufactured from Ethylic Alcohol. Specially prepared for Anæsthetic purposes. Ether Purificatus, S.G., ·720. Prepared from Methylated Spirit. Duncan's Chloryl Anæsthetic. (Absolute Ethyl Chloride). Perfectly free from Hydrochloric Acid, empyreumatic bodies and Ethers, possessing a fragrant ethereal odour. The vapour is non-irritating. Supplied in automatic cylinders containing 60 cc. and in glass capsules containing 3 and 5 cc. Inhaler (Ethyl Chloride). The "Simplex" Inhaler. Its great advantage is its simplicity; it can at any moment be adapted to the Ether Chamber of a Clover, and the Ethyl Chloride Ether sequence used. Capsules (Flexible Gelatine). Nearly every variety of drug can now be obtained in this form, notably Blaud Pill Capsules, which are of guaranteed strength, and put up in one, two, and three pill Capsules, and in various combinations. Soaps (Baumol). Superfatted 3 per cent. and delicately perfumed. Baumol Medicated Soaps: Baumol Carbolic Soap, 10 per cent.; Baumol Coal Tar Soap, 8 per cent.; Baumol Resorcin and Salicylic Soap, of each 3 per cent.; Baumol Sulphur and Salicylic Acid Soap, 10 per cent. Duncan's Fluid Soap (Sapo Mollis Peroleat Liq., Duncan). A superfatted neutral Potash Soap, possessing a very high degree of cleansing power. Duncan's Sapo Antisepticus Ætherius. A valuable antiseptic disinfecting wash, containing 1 in 1,000 of Red Iodide of Mercury. Very useful in preparing skin areas prior to a surgical operation. Compressed Tablets, Aromatic Throat Tablets, containing Benzoic Acid, Eucalyptol, Menthol, Aniseed and Cocain. Aromatic Medicinal Tablets, of Calomel, Grey Powder, &c., delicately flavoured, very suitable for administration to

children. Perchloride of Mercury Tablets, in two strengths, 1 in 1,000 and 1 in 4,000. Pure Carbolic Acid Tablets, 20 grains. Sulphate of Zinc Tablets, for preparing the old useful astringent Lotio Rubra. Douche Tablets: Nasal Douche Tablets, Antiseptikos Tablets (Nasal Pharyngeal), Antiseptikos Douche Tablets, for Vaginal Douche. A deodorant and astringent tablet, rapidly soluble in warm water. Bismulait (Mist. Bismuth Alb.). A uniform, palatable and amorphous preparation of Bismuth. Each fluid drachm contains the equivalent of five grains of Oxycarbonate of Bismuth. Elixir Fructi Laxativ. An elegant and mild aperient, composed of Senna, Cascara, Tamarinds, and Cassia, with the agreeable flavourings of other fruits. Elixir Terpo Heroin Co. (Duncan). A useful combination of these two remedies in cases of Phthisis and Bronchial Catarrh where Morphia is contraindicated. Mist. Pepsin Comp. c. Bismuth (Duncan). Each fluid drachm contains two Min. Hydrocyanic Acid with Opium and Nux Vomica. Compound Petroleum Emulsion. Contains the finest Petroleum combined with the Hypophosphites of Lime and Soda. Antiseptic Dermolia (Duncan). An emollient antiseptic cream, containing Zinc. Oxide, Carbolic Acid, 1 per cent. Thymol, Woolfat, &c., delicately perfumed. Antiseptic Dusting Powder (Duncan). Composed of Zinc Oleate and Boric Acid in combination with pure wheaten starch, delicately perfumed, and is in a fine dry powder. Supplied also without perfume. Unguentum Antiseptic (Duncan's Antiseptic Dressing). A Zinc and Boric Ointment combined with suitable antiseptics, specially prepared for dressing wounds and for general surgical purposes. Unguentum Pini Sedativ. (Duncan). Composed of a modified form of Zinc Ointment in combination with a mixture of the various Pine Oils. Emp. Belladonne Liq. (Duncan). A fluid Plaster of great convenience, as it can be applied without trouble in a minute. Lotio Boracis Comp. Conc. A carbolated antiseptic lotion, being a combination of Boric Acid and Phenol. A useful gargle for septic throats, and diluted with water is a very refreshing mouth wash.

Messrs. S. W. Easton and Son (62, Great Portland Street, W.).

Messrs. S. W. Easton and Son included in their exhibit a capital assortment of every-day requirements essential to the busy practitioner. One thing noticed was a first rate Writing Desk, combining all the many advantages of a Roll Top Desk, but designed specially for professional consulting room use. We understand the desk is of British manufacture throughout, and can be had in fumed oak for £11 10s., or in walnut or mahogany for £12. This firm also showed "The Gunn" Sectional Bookcase—the latest thing in this class of bookcase, which is daily increasing in popularity, combining several improvements and features embodied in no other similar case. The Gunn Sectional Bookcase is made in oak, birch or solid mahogany, finished in the best style, at very cheap prices. A single section can be bought, and other sections added at any time to exactly match. These bookcases are not only available for books, but surgical instruments and dressings can be kept in them at the same time. S. W. Easton and Son also exhibited the latest thing in cabinets for filing case sheets, visiting lists; and their usual good assortment of medical account forms, appointment cards, prescription sheets and note papers, and fountain pens of various kinds.

Fairchild Brothers and Foster (New York, and Snow Hill Buildings, E.C.).

Fairchild Brothers and Foster, as on previous occasions, had a tastefully arranged exhibit of their well-known "Fairchild" digestive and food products —Peptogenic Milk Powder, "Zymine" Peptonising Tubes, Panopepton, Pepsencia, Diazyme, Enzymol and Pepules, "Pepule" Pepsin and Zymine, and "Pepule" Pepsin, Bismuth and Zymine are recent additions to their list. Peptogenic Milk Powder is claimed to be an improvement on the "Zymine" Peptonising Tubes, as furnishing an easy and scientific means of treating milk

for infants. Panopepton—predigested beef and wheat flour preserved in sherry—is said to have proved an excellent support in infantile diarrhœa, when it is deemed well to discontinue the milk diet; the usual portion is from 15 to 30 drops diluted in whey or water. Pepsencia continues to grow in favour, it is referred to as a palatable and efficient digestive essence.

The Ferroleum Company, Ltd. (86, Clerkenwell Road, E.C.).

This firm had an exhibit of their well-known speciality "Ferroleum." This is an emulsion of cod liver oil with phosphorised iron. The formula is given as follows: Ol morrhuæ ℥vii., ferri phosphat. ℥ii., phosphori, gri., glycerin, &c., ℥xv. We would heartily recommend a trial.

The Holborn Surgical Instrument Company, Limited (26, Thavies Inn, Holborn).

This exhibit was devoted to the display of a general assortment of surgical instruments, sterilisers, &c. The make and finish of the instruments was very good, and we were struck by the moderate prices which were asked.

Messrs. Hopper and Company (48, Strand).

Messrs. Hopper showed a large collection of Electrical Instruments, including Throat and Head Lamps, Batteries, Cauteries, &c., &c., all of which were well finished and of moderate price.

Hunyadi János Natural Aperient Water (Andreas Saxlehebner, Buda-Pest, and Trafalgar Buildings, Charing Cross).

In this exhibit was displayed the well-known aperient water "Hunyadi." This has been so long before the public that it is unnecessary to say anything in its favour. It is undoubtedly one of the best of the natural aperient waters.

Messrs. Ingram and Royle, Limited (26, Upper Thames Street, London).

This firm was represented by a display of the popular Vichy Waters, Grande Grille, Hôpital and Celestins. The chemical constituents of these waters are very similar, their chief characteristic being the presence of a large percentage of sodium bicarbonate and pure carbon dioxide. The merits of the Vichy Waters are undisputed in congestions of the stomach, liver and intestines, and various gouty conditions.

International Plasmon Company, Limited (56, Duke Street, Grosvenor Square, W.).

This well-known firm exhibited a large number of samples of their famous preparation. Plasmon is the caseinogen of fresh milk dried into a soluble powder, by removal of the fat, the sugar and the water: 100 lbs. of milk making about 3 lbs. of Plasmon. This preparation has quickly advanced into favour as a valuable food, and is now made up into many elegant forms, such as biscuits, chocolate, cocoa, beef plasmon, &c., so that it may readily be made use of in the sick room.

Messrs. Krohne and Sesemann (37, Duke Street, Manchester Square, W.).

Messrs. Krohne and Sesemann showed a collection of Surgical Instruments and Appliances, including some new splints for the hip and lower extremities, by C. B. Keetley, Esq., F.R.C.S.; Dr. James Mackenzie's Clinical Polygraph, Krohne and Sesemann's Patent Chloroform Inhalers, Improved Artificial Eyes, Aural Masseur, Ethyl Chloride Inhalers, Spray Producers, Tonsil Guillotines. These exhibits well maintained the reputation of the firm for the excellence of their instruments.

Messrs. Lemmon and Company (19, Hanover Square, London, W.).

The electrical exhibit of Lemmon and Co. embodied several novel and interesting features. This firm specialise in every description of electrical apparatus designed for hospital and private professional use. A special feature was the demonstration of the Röntgen X-rays by means of one of their well-known 12-inch induction coils, using an X-ray tube which was fitted with an arrangement for the speedy and convenient alteration of the vacuum density from "hard" to "soft," or *vice versâ*. A cabinet was shown, in which great interest was evinced, containing one of their special cell Portable Accumulators fitted for light and cautery—using the accumulators as a source of current; an Electric Motor, mounted on a pedestal, was worked to demonstrate its utility as a means of power for the application of rotary burrs in mastoid work, &c. The same motor also took a fitting for vibrating massage, a form of application impossible to obtain by manual treatment. Some switchboards designed for galvanisers, faradisers, light, cautery, &c., showed excellence of design and workmanship, and Electrodes for use with them, were very practicable. Accumulators for light and cautery, for which Lemmon and Co. possess a specially high reputation, were also shown; the two great points about these being their lightness and the fact that they do not spontaneously discharge when not in use. An Urethroscope, with attachment for the aero-inflation of the urethra under electrical illumination, designed by Mr. John Pardoe, F.R.C.S., for use at St. Peter's Hospital, was considered a distinct advance in urethral examination, permitting lacunæ, &c., to be seen and applications made in cases which had hitherto been most difficult. Their types of cystoscopes, all fitted with "cold" lamps, for examination, catheterisation, irrigation, &c., were shown, the illumination and extreme detail in the definition being remarkably fine. An electric torch, in which the whole of the light rays were transmitted from the curved end of a solid glass rod, created general interest, while Head Lamps, Lamps for Transillumination of the antrum and frontal sinus, eye examination, laryngeal illumination, &c., all possessed special qualities. Every type of high frequency apparatus, Finsen light, &c., is also supplied by them.

H. K. Lewis (136, Gower Street, London, W.C.).

Amongst the new publications shown by H. K. Lewis, 136, Gower Street, W.C., may be mentioned the new edition (eleventh) of "The Extra Pharmacopœia" of Martindale and Westcott; Radcliffe-Crocker's "Diseases of the Skin," third edition, two vols.; Lewer's "Diseases of Women," sixth edition; and "Cancer of the Uterus," by the same author; Swanzy's "Diseases of the Eye," eighth edition; Walker's Gordon Lectures on "The General Pathology of Inflammation, Infection and Fever"; MacLeod's "Practical Handbook of the Pathology of the Skin" (forty plates); Parke and Kenwood's "Hygiene and Public Health," second edition; Herring's "Sterilisation of the Urethral Instruments"; Kenwood's "Public Health Laboratory Work," third edition; Higgens' "Manual of Ophthalmic Practice," second edition; the first eleven fasciculi of the New Sydenham Society's new "Clinical Atlas"; also Case-books, Nursing and Temperature Charts, &c.

The Manhu Food Company, Limited (Liverpool, and 23, Mount Pleasant, London, W.C.).

The Manhu Food Company, Limited, displayed their excellent preparations of Starch-changed Diabetic Foods. The very large and increasing sale is a satisfactory proof of the benefit derived by patients, and of the support given by the medical profession. The Foods comprised: Flour for bread-making, and all purposes in which ordinary flour is used, Biscuits, Flaked Wheat and Flaked Barley for porridge, &c.), Prepared Barley for barley water, &c., Barley Cocoa and Macaroni.

Messrs. Mayer and Meltzer (71, Great Portland Street, W.).

Messrs. Mayer and Meltzer exhibited a specimen of their University Instrument Tables, made entirely of polished bronze, with plate glass shelves, bronze being chosen as a suitable material for hospital furniture on account of its high tensile strength, and because it does not perish or lose its properties with age so quickly as do brass or German silver. They also showed specimens of their Electric Lamps on floor and table standards. A new Hand Motor designed by Mr. Hugh Jones, of Liverpool, which is noiseless in action, and in which the motion is obtained by turning the crank away from the body, an advantage not possessed by any form on the market. It has no cogwheels, consequently it runs smoothly without jerking, and is fitted with patent Aseptic Cable and Handpiece, similar to that designed for Mr. Ballance's Electric Motor. Messrs. Mayer and Meltzer also showed a new form of Lithotomy Crutch, designed by Dr. McCardie, Mr. Lynn Thomas' Tourniquet Forceps, and a large selection of Laryngeal, Nasal and Aural Instruments. One of the most interesting and useful articles exhibited was a "Douche-Steriliser," suggested by Dr. Salisbury Sharpe; the forceps and other instruments pack into the copper box which, being fitted with hinged supports, acts as a steriliser. It can be placed on end with a tube attached, acting as a vaginal or intra-uterine douche.

Mellin's Food, Limited (Marlborough Works, Stafford Street, Peckham, S.E.).

This firm had a large exhibit, comprising Mellin's Food for Infants and Invalids. A brownish granular powder, prepared from cereal grains, in which the starch has been converted into its soluble products by the action of vegetable diastase (*vide* analyses by Drs. Fresenius, Stutzer, Wigner, &c.). Mellin's Food modifies cows' milk, and renders it physiologically and chemically like human milk. **MELLIN'S LACTO-GLYCOSE** is prepared from Mellin's Food and fresh cows' milk. This food is for temporary use where fresh cows' milk cannot be obtained, or where, for any reason, milk falls under suspicion. For use, mix with warm water only; thus prepared it constitutes an easily digested, nutritious and sustaining diet for old as well as young, and for the healthy as well as for the sick. It is a palatable food beverage, relished by old and young alike. Mellin's Food Biscuits are prepared from wheaten flour, and contain a high percentage of Mellin's Food, thus securing a solid food in a pleasant and palatable form, well adapted for children and others, to whom an entirely soluble diet would not be suitable. Mellin's Food Chocolate is prepared from the finest selected cocoa and Mellin's Food, of which it contains 30 per cent. It combines, therefore, at once the highly agreeable and palatable properties of a first-class confection and the remarkable nutritive and sustaining power of Mellin's Food.

Moseley's Food (Stockport, Cheshire).

This was an exhibit of a food recommended for infants, invalids and others requiring an easily assimilated nourishment. It is described by the proprietors as a non-chemicalised farinaceous preparation containing no insoluble starch, and which peptonises or digests with remarkable ease and rapidity; very rich in proteids and potently alimentative. Fresh milk being used with Moseley's Food it is free from any tendency to scurvy. "Made in a minute" it is easily and quickly prepared, is highly concentrated and most economical in use, and should speedily take a place among the well-known infant foods, more especially as it is sold at a most reasonable price.

Messrs. Oppenheimer, Son and Co., Limited (179, Queen Victoria Street, London, E.C.).

Messrs. Oppenheimer exhibited a large collection of their preparations, amongst which we noticed Ergole. This is a new preparation of ergot and

rye, prepared by a special process of their own. It is three times the strength of the B.P. preparation, is manufactured without heat by repercolation, and consists of a complete extract of the finest Spanish ergot. It is sterilised by filtration under pressure, does not decompose on exposure, and is equally adapted for oral or subcutaneous administration, the dose in the former case being one-third that of the B.P. fluid extract of ergot. Medicine Cases:—A variety of these, suitable for all purposes, was on view. They include Emergency Cases, Buggy Cases, Teakwood Cases, and Pocket Medicine Cases, while a combined Emergency and Midwifery Case, suitable for use as a handbag or for attachment to a bicycle, possesses the decidedly unique qualities of orginality and convenience. Rectones:—Rectones are improved nutrient and medicated suppositories. They afford many advantages over the ordinary form of suppositories, and are supplied in various strengths and formulæ. Renaglandin:—This preparation is an aseptic concentrated solution of the suprarenal gland, and has been most extensively used as a hæmostatic. It is particularly valuable in dental practice, especially in that class of cases in which there is a prolonged and occasionally severe hæmorrhage after extraction. The "Optimus" Powder Insufflator:—This is a convenient instrument for applying powders of all kinds, to wounds, and to various diseased conditions of the nose, throat and ear. It is easily adaptable to the many uses in the practice of medicine and surgery to which topically-applied powders are put on account of the removability of the parts, which can be quickly adjusted for the treatment of the organs above-mentioned. The perforator cap is used for dusting powder in the same manner as pepper is shaken from a pepper castor, and is most valuable in the treatment of ulcers, burns, abraded surfaces, and wounds of all kinds. The vulcanite tube (pointing *upwards*) should be attached in treating all diseases of the posterior nares and postal nasal space. The Patent Hypodermic Syringe:—Every medical practitioner has at some time or other found it necessary to have a thoroughly reliable syringe, which he could quickly render aseptic without injuring it. The syringe mentioned above fulfils those conditions perfectly, as being made of glass it can be boiled in order to produce sterilisation. Another important point is the vulcanite end of the solid glass piston. In other glass syringes, in which the piston is entirely made of glass, the end is very liable to be broken off when the piston is driven sharply home. This is obviated in the above syringe. Palatinoids of Animal Substances:—The remarkable tendency of the various glands and tissues to decompose after a very short period, has been one of the chief hindrances to a more extended use of these substances in modern medicine. The same objection holds good, whether the preparation be a liquid extract or dry powder, mere exposure to the air being, in the great majority of cases, quite sufficient to lead to the development of ptomaines; in fact, quite a number of cases have been recorded in which objectional symptoms following the administration of animal substances were traced to the presence of toxic principles which had developed in the preparation somewhere between the removal of the tissue from the animal and its ultimate ingestion for therapeutic purposes. This is entirely avoided in Palatinoids of Animal Substances, a few hours only elapsing between their collection and manufacture, every detail being carried out under the most perfect aseptic conditions. Further, the hermetic seal of the jujube coating of the Palatinoid prevents access of air, so that in this form the organic tissue will remain unaffected by external influences for years. Aseptoids:—Formulæ of Dr. Macnaughton-Jones. These are tablets consisting of Sodii Chloridi, gr. 7, Sodii Biboratis, gr. $2\frac{1}{2}$, Menthol, gr. $\frac{1}{30}$, Thymol, gr. $\frac{1}{100}$, Cocain Hydrochlor., gr. $\frac{1}{8}$, Ol Gaultheriæ, m. $\frac{1}{10}$. They afford a ready and convenient means of instantly making a solution for use as nasal douche or gargle, and have met with the unqualified approval of rhinologists. Maglactis (Cream of Magnesia):—A cream of pure magnesia hydrate. Its value is admitted by the dental profession as a mouth wash, whilst it is also popular with physicians by reason of its utility as an antacid and corrective.

Messrs. Parke, Davis and Co., (111, Queen Victoria Street, E.C.).

The therapeuric value of the preparation of drugs exhibited by the above firm is attested by the fact that they are standarised and guaranteed to be of full and uniform strength. All remedial agents, such as Aconite, Cannabis Indica, Digitalis, Ergot, Strophanthus, and certain biological products which cannot be assayed by chemical means, are physiologically standarised. An additional advantage may be attained by the use of their Fluid Extracts in the preparation of tinctures, owing to the saving in expense resulting from the smaller amount of alcohol used. Acetozone (Benzoyl-Acetyl-Peroxide), a new non-poisonous germicide, thirty times the strength of Mercuric Chloride, and in all probability the most powerful germicide known. Solution Adrenalin Chloride, prepared from the active principle of the suprarenal gland, isolated by Dr. Takamine, a member of the scientific staff. In the arrest of hæmorrhage the vaso-constrictor action of this product has been so frequently and successfully employed that the solution now forms an essential in the armamentarium of medical and surgical practice. A single drop of one part of Adrenalin Chloride in ten thousand parts of normal salt solution will blanch the conjunctiva in thirty to sixty seconds, and a solution of that strength sprayed into the nares is said by physicians to give excellent results in the treatment of Hay Fever. Solution Adrenalin Chloride may also be combined with Cocaine as the latest improved method of producing local analgesia. Lecithine, an organic phosphorus compound, existing in brain matter and in the yoke of egg. It is wholly assimilable and favours the acceleration of nutritive changes. Recent investigations indicate its value in the treatment of Tuberculosis, Neurasthenia, Rickets and similar affections. Digitalone, an aseptic, non-alcoholic solution of Digitalis, which may be administered either hypodermically or internally. Cascara Evacuant, an active and agreeable preparation of the unchanged bitterless glucosides of Cascara Sagrada, possessing all the desirable laxative properties of this valuable drug. Fluid Cascara Sagrada, Aromatic:—This is half the strength of the fluid extract, Cascara Sagrada, and meets the demand for a palatable preparation. Chloretone:—Hypnotic, Antisepsic, Analgesic. In the treatment of insomnia, epilepsy, asthma, sea-sickness, chorea, alcoholism, headache, &c., chloretone has proved of great value. Mercurol:—A chemical compound of nuclein with mercury. Specially indicated in the treatment of syphilis, gonorrhœa, cystitis, ear suppurations, ulcers, &c. Nargol:—A chemical compound of silver with nucleinic acid, containing about 10 per cent. of silver. It is readily soluble in water, and possesses great penetrating power. Nargol does not coagulate albumen and is strongly bactericidal. Chocolate-coated Tablets:—The elegance of finish of the tablets, combined with the absolute permanence secured by the chocolate investment, has already made them very popular with the profession. Pills:—Sugar-coated and gelatin-coated pills are invested by a method avoiding the application of any degree of heat which could impair their efficacy. Medicinal Elixirs:—Designed to present medicines in a form agreeable to the palate. They are guaranteed to contain the full proportion of medicaments indicated on the label, and to represent their therapeutic value as fully as the nature of the preparation will permit. Antiseptic Tablets:—Convenient for surgical uses, and all occasions where a trustworthy antiseptic solution of definite strength is required. There was also a large assortment of emergency cases and bags fitted with a comprehensive list of standardised products, comprising concentrated drugs and medicines in the form of compressed tablets and pills, on view. Medical Chests:—Especially designed for use on expeditions, &c. These are strongly made, well finished, and for completeness and economy of space are all that can be desired. Taka-Diastase:—An isolated ferment in powder, liquid and compressed tablet form for the treatment of amylaceous dyspepsia. Taka-Diastase will convert at least one hundred times its weight of dry starch under proper conditions. Taka-Diastase compound compressed tablets, containing in appropriate doses Taka-Diastase, pepsin,

pancreatin and sodium bicarbonate. Taka-Diastase with chocolate, specially adapted for administration to children. Cuprol:—A chemical compound of copper with nucleinic acid, and containing about 6 per cent. of the former. The great advantage to be gained in the use of Cuprol over copper salts in general is that it penetrates the tissues more deeply, and is much less irritating to inflamed surfaces. Ergot Aseptic:—A physiologically tested and standardised preparation, free from acid and alkali, and from all chemical preservatives. In hermetically-sealed glass bulbs, each containing one cubic centimetre representing two grammes of standard ergot. Ferrinol:—A nucleide of iron, in the form of a brown powder, containing 6 per cent. of metallic iron. It does not interfere with gastric digestion, passes through the stomach unchanged, and is absorbed by the small intestine only. Antidiphtheria Serum submitted for examination in the laboratories of the Royal Colleges of Physicians and Surgeons, and certified as to Antitoxin Unit Potency, and freedom from organism. Antistreptococcus Serum for use in puerperal fever and all Streptococcal infections, Antitetanus Serum, &c., &c.

Vitalia, Limited (5, Albion Place, Blackfriars, S.E.).

The specialities exhibited by this firm consisted of Vitalia Meat Juice and "Vinsip." Vitalia Meat Juice is a highly concentrated preparation, containing 25 per cent. of the plastic food elements of the tissues. It is made up of Liq. Hæmoglobin Co., which is a tasteless solution of hæmoglobin preserved with dilute alcohol, and Ext. Carnis. Both are palatable, and readily taken by patients, and are found to be useful in anæmic and neurasthenic conditions, when the effect of an easily assimilated food is required.

Virol, Limited (152 & 166, Old Street, London, E.C.).

This firm has gained a great reputation for the valuable food product which forms its speciality. As is well known, Virol is an emulsion of red bone marrow, malt extract, eggs, lime and lemon juice, and is exceedingly palatable and easily absorbed and digested. It is therefore of great use as a nutrient and substitute for cod-liver oil for children and invalids in all wasting diseases and debility following prolonged illnesses.

Welford & Sons, Limited (Elgin Avenue, Maida Vale, W.).

A display of Milk Products and Preparations, including Fresh Milk for the Nursery, Asses' Milk, and their well-known Preparations of Humanised Milk in two strengths, the Standard Preparation No. 1 being prepared to correspond to best quality Mother's Milk and Modified Humanised Milk with a minimum percentage of casein or curd for very young and delicate infants; Peptonised Milk for patients only able to assimilate pre-digested foods. Sterilised Milk, as prepared by this dairy, being much in favour with the travelling public and amongst town patrons for use at seaside and country places, where the local supplies are unreliable and lack the guarantee of healthy surroundings at place of production; Koumiss, an old favourite with the medical profession. Messrs. Welford and Sons, having their own dairy, make a speciality of preparing Medical Prescriptions of milk to contain any proportion of fat, milk, sugar, proteids, &c., thus placing within the hands of the medical practitioner advantages which are much appreciated; a display of Apparatus illustrating the analysis of milk; Culture Plates, various Tables, Diagrams, Models, &c., connected with the chemical and bacteriological examination of milk, including the illustration of the comparative resolution of proteids of milk before and after peptonisation.

NOTES AND NEWS.

THE Annual Dinner of our Society took place on May 4, when members and their friends met together at the Trocadero, Piccadilly, under the Chairmanship of the President, Dr. Seymour Taylor. As usual it was a great success. Mr. C. B. Keetley proposed the toast of "The Imperial Forces" in an able speech, in which he protested strongly against the omission of the head of the Army Medical Department from the New War Office Board. The toast was replied to by Fleet-Surgeon French, who pointed out the horrors of modern naval warfare and the inability of naval surgeons to be of any help to those wounded until after the action. Colonel Hensley, I.M.S., also responded, giving experiences of the Medical Service in India. Mr. Stephen Paget proposed "The Kindred Societies and Guests," and this was acknowledged by Dr. R. Havilland Hall and Dr. Theodore Williams. Mr. F. Swinford Edwards, in a humorous speech, gave the toast of "The President and the Society," to which the President responded. The feature of the evening was the presentation to Mr. Percy Dunn and Mr. McAdams Eccles of a silver bowl each, in recognition of the long and arduous services they had rendered to the Society in connection with the Journal. The President, when presenting the testimonial, made a most able and sympathetic speech, and this was suitably responded to by Messrs. P. Dunn and Eccles.

WE agree with Mr. Keetley in expressing great regret that the Director General of the Army Medical Corps is not to have a seat on the Army Board. This means that the medical department is to have no direct representation on the administrative body. Why this should be we cannot understand. As every one knows, and as was amply demonstrated during the late South African war, during a campaign it is disease which devastates the troops infinitely more than do bullets. Simply on the grounds of economy we should have thought it would have paid to have guarded against this contingency with the best effective means possible. For years the Army Medical Service has been under a cloud, getting for the most part the type of man it catered for. Indeed, in some of the London Medical Schools the authorities went out of their way to advise men not to join the service. But that good men are willing to serve was evidenced by the marked improvement in the type of man who joined under the improved conditions which have just come into force. It would be a thousand pities that the

service should now suffer from lack of representation just as the outlook was so good.

THE Royal Commission appointed to enquire into the relations of human and animal tuberculosis by means of their experiments, have arrived at such important results that they have deemed it their duty to make an interim report without waiting for a completion of their labours. They say, "We have very carefully compared the disease (tuberculosis) set up in the bovine animal by material of human origin, with that set up in the bovine animal by material of bovine origin, and so far we have found the one, both in its broad general features and in its finer histological details, to be identical with the other."

In effect this is a statement that human and animal tuberculosis are one and the same thing, and that the disease can be transmitted from cattle to the human species, and *vice versâ*, and directly refutes the theory of Dr. Koch, that human and bovine tuberculosis were two separate and distinct diseases, and that there was not any evidence of their being intercommunicable. The Commissioners distinctly disprove this theory by means of twenty experiments in which sputum or diseased tissues from as many human strains were employed to inoculate cattle. In seven cases the cattle at once developed acute tuberculosis, and in the remaining thirteen the results were not so well pronounced. These results proved quite clearly that it would be most unwise to relax any precautions in dealing with tuberculous meat, or milk from diseased cows. Indeed, they should be made more stringent than before.

IN the course of the Presidental address of the British Electrotherapeutic Society, Dr. Lewis Jones referred to "the invasion of the field of medical practice by unqualified persons, with the approval and support of medical men," and many of his remarks are well worthy of consideration. He said, "In electrotherapeutics we have always had to endure the competition of the common quack and seller of electric or magnetic belts, but now the field is being invaded by chemists and by instrument makers, who carry out X-ray photography and X-ray therapeutics, and by syndicates, well organised and equipped for making money by the treatment of patients; and the matter is made very serious by the extent to which these persons and agencies are supported by members of the medical profession. Thus there is a threatened invasion of our own proper sphere of medical practice by laymen who have some knowledge of electrical apparatus and the intention

of taking up this branch of medical treatment as a means of livelihood." . . . .

. . . . "An inconsistency which seems to me to be a glaring one is the following. As you know, the unqualified assistant has been ruthlessly exterminated with all the rigour of the law. In his day he worked under the close supervision of his chief, attending mainly to minor points of medical practice, and he was subject to loss of employment if he did wrong. Is it not an abandonment of the principle for which the unqualified assistant was sacrificed, to countenance the unqualified electrician? Nowadays the unqualified electrician is flourishing by the support of medical men who have no control over him, who are generally unable to prescribe the details of what they wish to be done with any accuracy, nor to form any proper judgment as to the manner in which their instructions are being carried out."

In the *Sandringham Magazine* Mr. Athol Maudslay has an interesting article on horses, and discusses those which give the best results. Big horses, he states—and this is our experience in London, except for show—make very bad harness horses, whereas small horses under 15.2, and more especially ponies, are invariably good in harness. A big horse will soon hammer himself to pieces, and after a long day's work will be done up next day, and his legs will fail, whereas small horses and ponies will do long distances fast and without fatigue, and if well bred, with plenty of substance and bone, it is surprising for how many years they will do continuous hard work, without deterioration. The moral of which is, buy a good cob or pony for medical work, instead of a horse of 16 hands and over.

The principal feature of the Annual Conversazione is the splendid exhibition by the various firms advertising in the Journal. These gentlemen go to very considerable trouble and expense in order to give a good and interesting display of their exhibits, and it would be some return and indirectly of assistance to the Journal, if members would look in the advertisement pages, when in need of any medical or surgical appliance, or indeed anything connected with the profession, before ordering elsewhere.

In the forthcoming Rose Show at Holland House, the money received for admission will be given to the West London Hospital, and to the Ladies' Association of the West London Hospital, so that visitors will not only have an opportunity of visiting this historic house and gardens, but will at the same time be indirectly benefiting the Hospital.

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Original Communications.

NOTES ON PSYCHOLOGY.

By CHARLES M. TUKE, M.R.C.S.Eng.

GENTLEMEN,—I have first of all to thank you for placing me in this honourable position. The intimation that I was to be nominated by the Council of this Society as President for the ensuing year of work was a surprise to me, and I confess that my ambitions have not reached to that height. My first feeling was of diffidence, and a perusal of the list of past Presidents and Honorary Members only deepens the impression. Our Society is not a new one; it has "come of age," and this session is, I believe, the twenty-third in which it has continued to flourish and maintain a high reputation. Hence my feelings of gratitude are largely tempered with misgivings. But what I can do to prove the former I assure you I will strive to do; and I am encouraged by feeling that I have your goodwill, and the assistance of zealous officers who will aid me in trying to the best of my ability to promote the interests and prosperity of the West London Medico-Chirurgical Society.

It is my privilege to address the first meeting, and naturally one turns for subject-matter to the special work which has fallen to one's lot, and therefore I beg your consideration while I attempt to interest you with notes put together on the subject of psychology and advance in the treatment of insanity in England.

During the last fifty years enormous advance has been made in medical knowledge, which has benefited humanity and thrown light on dark places. Your late President, in his opening address, most ably treated this subject, and it must be fresh in the minds and recollections of us all. But he has, if I may say so, left a gap for me to try to fill.

Has the treatment of insanity stood still in these times? I think I can reply that progress has been made almost as great as in some other directions; not marked, perhaps, by any one great discovery, but chiefly by the general adoption of a principle which has been of enormous value to thousands of our weaker brethren, and has conferred honour on those who initiated it and on the profession of medicine. The "Non-restraint System" is now universal, but in considering the advances of medical science, its first recognition must mark an epoch, and it is almost impossible to believe that it dates only from some sixty years ago.

In ancient history we find many references to insanity and instances of persons who had lost their reason. The feigned madness of Ulysses has been cited as one of the instances of such. Plato refers several times to madness, apparently not considering it a reproach; he describes "two kinds of madness, one arising from human diseases, the other from an inspired deviation from established custom." Euripides, in describing the orgies of Bacchus, makes allusion to the power of this god in inducing it. He says of Pentheus, who profanely opposed his worship:

> "Now Bacchus comes thy part; nor distant thou;
> Avenge us on him; of his senses first
> Deprive him; with light madness strike his soul."

The Mosaic law makes no provision for the occurrence of madness, but Josephus says that "Solomon left behind him the means for exorcising demons which were so effective as to prevent their return."

Hippocrates, who flourished in the palmy days of Greece, more than two thousand years ago, has of course observed and written on the subject. In his "Aphorisms" he says: "Persons who have a painful affection of their body, and are in a great measure insensible of the pain, are disordered in intellect."

In passing, may I remark that I wonder if this has ever been observed by the "Christian Scientists" of the present day?

Hippocrates, referring to the supervention of other diseases, says: "In maniacal affections, if varices or hæmorrhoids come on, they remove mania. In writing of the brain he reasons thus: "As long as the brain is at rest the man enjoys his reason, but the derangement of the brain arises from phlegm and bile, either of which you may know in this manner: those who are mad from phlegm are quiet and do not cry out or make a noise, but those from bile are vociferous, malignant, and will not be quiet, but are always doing something improper." At any rate, though the references to this disease are not very numerous, it may be noticed that he was able to distinguish between mania, melancholy, and a state of dementia.

I need not weary you by quoting other examples from the Roman poets. There are numerous references in the writings of Virgil, Ovid, Plautus and Horace. The ancients had their own views of treatment, and music is perhaps the earliest recorded. In the first book of Samuel it is written that he (David) "took a harp and played with his hand; and Saul was refreshed and was well, and the evil spirit departed from him."

Hippocrates, or at least whoever was the writer of "De Morbis," prescribes thus for melancholy persons, "a tranquil, regular life, the absence of all excess, sobriety, a vegetable diet, food but little seasoned, continence, exercise short of fatigue and never in the sun, and bleeding." This seems at least reasonable, and far more to be commended than the treatment advised by Celsus—coercion, blows, scolding, and even hunger; chains and floggings to subdue the violent.

But he did approve of venesection, and of cupping applied to the head, which he observes will have the effect of inducing sleep, and he recommends emetics, purgatives of white hellebore, and the employment of frictions. When the patient is no longer violent he has more pleasant remedies to offer, and directs that cheerful hopes should be excited, pleasure being sought in fables and sports, &c. He mentions the good effect of a full diet in some cases of insomnia, and for the same cause advises frictions, exercise after food and by night, and the sound of a waterfall, &c.

Cœlius has more modern views, and lays down rules for protecting the patient by the judicious employment of attendants, by light diet, shampooing, &c., and as the patient improves, mental exercises are advised to encourage and amuse. Later, the writings of Galen chiefly depend on the ancient idea of "humours," which are generated in the blood. He speaks of the melancholy humour as a condition of the blood which is "thickened and more like black bile, which indeed, entering to the brain, causes melancholy symptoms to affect the mind."

I have mentioned these authors and their practice with a view to comparing them with more modern methods. And here, again, we must notice with surprise and wonder that it is not possible to trace a gradual improvement in the history of the treatment of insanity. In England, the condition of the insane was deplorable, and cruel neglect was for many years their lot. Some even were burnt as witches, some confined in prisons, many roamed the country, or dragged out a miserable existence as the village idiot.

In the foregoing notes I have largely quoted from the early chapters of "Psychological Medicine," by Drs. Bucknill and Tuke. And now begins the history of a change in the whole system. In 1792 the great Pinel commenced a noble work by liberating from chains some fifty-three patients, who were thus restrained at the Bicêtre, and the "Non-restraint System" was inaugurated, and there carried on by Esquirol. In England the Bethlem Hospital was founded by Henry VIII. in 1547. It was improved in 1734 and St. Luke's Hospital was established by voluntary contributions in 1751.

But though there were several treatises published, nothing much was done till the latter part of the century, and the conditions remained almost stationary—bars and chains, darkness and ignorance, was the order of the day.

Then came the remarkable achievements of William Tuke, who in the same year as Pinel, in France, began the great reform, was moved by compassion to establish, with the aid of the "Society of Friends," an institution called the "Retreat," at York. Here, though restraint was not altogether abolished, yet much was done to ameliorate the condition of the inmates by humane and enlightened treatment—care and attention was given to the housing, feeding and

employment of patients, and a report issued in 1813 by his grandson, Samuel Tuke, did much to direct public attention to the subject. This report and some fearful disclosures made as to the condition of the York Asylum, between 1777 and 1814, led to the appointment of a Committee of the House of Commons in 1815. From this time forward the ignorance and want of practical knowledge of the capabilities of the insane, which had, no doubt, been the cause of the cruelty, rapidly gave way to a high degree of moral management, and new asylums were built and superintended by men of intelligence and humanity.

In the Lincoln Asylum this was notably the case under the management of Mr. Gardiner Hill and Dr. Charlesworth. Then on a larger scale and with far greater success, the experiment was carried out at the then new asylum at Hanwell.

This was done by my grandfather, Dr. Conolly, who was appointed Resident-Physician and Superintendent of the Middlesex Lunatic Asylum, at Hanwell, in June, 1839. He was a man of the highest moral feeling, educated and well read, kindly and gentle, and a true physician. He had published a book on the defective management of insane persons, and had long sacrificed himself in a study of the phenomena of insanity and the character of asylums, and was deeply impressed with a sense of his responsibilities.

Imagine the years of trial and the difficulties he had to contend with, and the spirit of hostility and even ridicule which opposed so novel a question as that of abolishing instruments of restraint, which from time immemorial had continued a part, at least, of the daily treatment of numerous cases of insanity. But he records that after the first of July, "when I required a daily return to be made to me of the number of patients restrained, there were never more than eighteen so treated in one day—a number which would seem reasonably small out of 800 patients, but for the fact that after July 31 the number so confined never exceeded eight, and after August 12 never exceeded one, and after September 20 no restraints were employed at all."

During the next few years Dr. Conolly's Annual Reports to the Committee of the Asylum, masterly written in simple language, show much of the deep solicitude and wise thought-

fulness with which he was conducting this work. In 1840 there is a passage to this effect. "During the past year not an instance has occurred in which the resident-physician thought it advisable to resort to any of the forms of bodily coercion previously employed. The use of the strait-waistcoat, the muff, the restraint-chair, and of any kind of strap and chair designed to restrain muscular motion was discontinued on September 21, 1839, and has never been resumed."

In 1842 he was able to write: "The appearance and general state of the patients in the wards, or when taking exercise, when engaged with indoor amusements, or when assembled at dinner or supper, when at work in the various departments of industry connected with the institution, or when attending divine service; the order, activity and cheerfulness pervading the asylum by day, and the tranquility of the whole house by night, are all indications that the general management of so many disordered minds is productive of those salutary effects which are the objects of all management."

The laws regarding the insane were entirely inefficient, and previous to 1744 were conspicuous by their absence. Then the "Vagrant Act" continued to be the earliest provision for the custody of lunatics. The justices were authorised by it to secure any persons or dangerous madman, and order such to be locked up, and if necessary chained, and in 1774 homes for the reception of patients were licensed by the College of Physicians, and a Medical Certificate on admission was required. This was a very great advance in the right direction.

Then came the Bill of 1828, carried by Lord Ashley, afterwards the celebrated and honoured Lord Shaftesbury, by which the Secretary of State was allowed to appoint fifteen commissioners annually to license and visit the homes previously licensed by the College of Physicians. This was amended in 1829 and revised in 1833, when the Lord Chancellor was directed to appoint commissioners, called the "Metropolitan Commissioners in Lunacy," with wider jurisdiction, and in 1843 power was granted to these gentlemen to visit county asylums and public asylums.

This resulted in the Commissioners' Report of 1844, which shows that in many asylums the condition of the patients was

bad in the extreme, and in consequence, Lord Ashley was again successful in introducing a Bill in 1845, which constituted the original important Lunacy Act, and the statutes regarding the custody of pauper lunatics, and the construction of county asylums advanced at the same time.

The Earl of Shaftesbury, through all this period, served his country nobly by labouring at these reforms, and devoted his life to official and unofficial work connected with the well-being of the insane, and his memory should be reverenced as an example to all men and statesmen. He presided over the Board of Commissioners from 1845, till within the last few years his vast experience and genius being of inestimable value to the community at large.

The Lunacy Commission, as at present constituted, consists of eleven Commissioners and a Secretary. Six of these are visiting Commissioners: three medical and three legal. They appoint their own Chairman and Secretary, and also clerks. The work of this Board is enormous, and is recognised by all capable of judging as being most efficiently carried out.

But the Board itself in its latest Blue Book asks that the numbers should be augmented by the Legislature in consequence of the great additions of work caused by the large annual increase of patients and institutions for the insane, stating that "arrangements, while generally sufficient for the duties of the Commissioners in 1845, are quite incompatible with those of 1904."

The Commissioners have the power, with the approval of the Lord Chancellor, to prescribe by rules the books to be kept in institutions and in homes for single patients, and the entries to be made therein, and the returns, reports, extracts, copies, statements, notices, plans, documents and information to be sent to the Commissioners. These are very numerous and entirely in the interest of the patients, and help to safeguard the patients under their jurisdiction.

The number of persons certified as insane in England and Wales is given in the fifty-eighth Report of the Commissioners as 117,199 on January 1, 1904; of these 106,771 are pauper patients, or those whose maintenance is wholly or partly defrayed out of the rates. There is a slight annual increase in the numbers at a greater rate than the growth of the population. However, this is more apparent than real.

It occurs almost wholly among the pauper patients, and may partly be accounted for, I believe, by the fact that cases are now more readily recognised and more frequently certified, and also possibly because with improved sanitation and medical treatment there is a tendency for the aged cases to accumulate in asylums.

In addition to the Lunacy Commission, and at present quite distinct from it, part of the provisions of the Act—that relating to the care and custody of persons of property—is administered by the Lord Chancellor and judges of the Supreme Court. In this case the Lord Chancellor, assisted by Masters in Lunacy, Visitors in Lunacy, and other officials, has the care of the persons and property of patients who are not certified, but who have been declared to be of unsound mind after an enquiry or inquisition held before a Master in Lunacy, with or without a jury. When thus found to be insane, guardians or committees are appointed under the supervision of the Court of Chancery to exercise authority over the persons and estates of the patients.

These patients may or may not be sent to suitable asylums; their residence is ordered by the Master, and their expenses are regulated by him and the Court of Chancery; and they are visited by, and reported on, by the Lord Chancellor's Visitors in Lunacy.

Thus the so-called "Chancery patient" is not under the jurisdiction of the Commissioners in Lunacy at all, unless he happens to be resident in an asylum or licensed house, and in that case only as regards his proper care and treatment as an inmate.

The lunacy law is thus very ample, and most properly provides every possible protection for the patient and his property. At the same time, any medical man being called upon to sign a certificate in lunacy is also protected if he has acted in good faith and with reasonable care. And in this case any proceedings which may be taken by the patient or others against him can be stayed, upon summary application being made to the High Court or judge thereof.

The law simply holds that no person can be confined or taken care of for profit or consideration on the ground of being of unsound mind, unless on the order of a magistrate, and with petition and two medical certificates; but this, of

course, does not apply to the case of a person being treated in the house of a near relative or natural guardian. Such treatment is possibly very rarely advisable for many reasons, but it may be legally done in good faith. Any breach of these laws, or failure to carry out the provisions of them, is to be treated as a misdemeanour under heavy penalties.

The necessity for the magisterial order was at first feared, but is by this time generally accepted, and is carried out without unreasonable difficulty and without publicity, though it entails a great tax upon the time of the appointed magistrates; yet, by their consideration for the patients and their relatives, I have found it to act smoothly. But the examination of patients by a stipendiary at police courts is quite unnecessary, and should be in all cases avoided. It is therefore the aim of modern legislation to provide for the registration and supervision of all the insane, *i.e.*, in public asylums, county or borough, in the case of private persons in hospitals and licensed houses, in single care, and as Chancery patients, and in these various ways 117,000 persons are accounted for. A very great deal has been done for the afflicted, and modern civilisation is not now shamed by the abuses and cruelties which were ignorantly permitted sixty years ago.

Though there can be no finality in the progress of psychology or the science and art of medicine applied to such a subject as the treatment of the insane, English asylums are now governed carefully and generally wisely by capably trained and educated medical men, conscious of their responsibilities, and greater progress has been made than the early reformers could have even hoped for. In fact, it may be that we are going too fast for the public mind, and that opinions deeply rooted may hinder the progress that might otherwise be made. Old prejudices remain, and there is no subject so ill understood by the world at large, whilst at the same time the "man in the street," so often referred to in the up-to-date press, believes he knows all about "mad houses," and is able to criticise them.

I believe that the terms used, or at least some of them, should be abolished. It is hard for the relatives of a patient to face the word "lunatic" so often. The "stigma of insanity" is an expression too often heard of. In these days

of nursing homes for surgical and medical cases, why should there not be the same readiness on the part of the public to accept medical aid in properly equipped and supervised houses for their afflicted friends. Much may be hoped for as education advances and the memory of old abuses fades.

The provision of the law as regards Voluntary Boarders, for treatment in licensed houses, deserves special mention. Properly used it is likely to be very valuable, especially as a means of procuring early treatment. It provides that on application being made to the Commissioners, or where the house is licensed by the justices, to them, consent may be given for a specified time for the patient to be received. The consent is only given on the application to them of the intending boarder, and the boarder may leave the licensed house in which he is a boarder by giving to the manager thereof twenty-four hours' notice of his intention so to do. The Commissioners are prepared to extend this consent to cases which have previously been admitted under the usual order and certificates, and I have found that when former patients have reason to fear an impending attack, or find themselves in ill-health, they will frequently voluntarily return under this provision.

In the case of patients in "Single Care," I am fully aware that I am touching on delicate ground. There are 505 cases of this class recorded in the Commissioners' Report; but the question arises, does this represent anything like the total number of persons kept under restraint in all sorts of places and by all sorts of people, "unknown to the Commissioners," unregistered, and not subject to any supervision?

I am quite ready to admit that there are many cases of quiet and harmless character, and especially among the chronic insane, which, under the provisions of the law, are perfectly well cared for by proper and fit persons. I think that persons, such as medical men, who have some knowledge of the subject should rightly have the charge of picked cases. But that some of these cases, or even more unsuitable ones, should be hidden away in unknown places, or openly under the name of nerve cases, or borderland cases, be received into rest homes or other like places, is a grave scandal. Such a state of things does exist, but how widely it is hard, indeed, to determine.

Within my own experience there have been more than a few of such cases. To take an instance; a lady whom I had met in society consults me about her sister, who had been for nearly three months in a rest-cure home at a seaside town, undergoing, at very considerable expense, treatment by massage. This patient one day attempts suicide by cutting her throat. At once the proprietor telegraphs, "Unsuitable case for me, must be removed to an asylum." I insist that a medical certificate of urgency should be procured, though this was at first objected to by the proprietor. I find the lady in an advanced condition of melancholia, with delusions that she was deserted by her friends, &c. The fact that she was debarred from visits from them, and was kept in bed, and not allowed to write letters, had very possibly helped to form this delusion. She recovered under treatment of a totally different character.

Again, only the other day, among a number of such applications, came a letter from a female attendant who had been in my service temporarily, stating that she had gone into partnership with a friend and would like to have a "nerve case." Possibly by the aid of an advertisement she will secure one.

I do not deny the existence of nerve cases; in these times we live in an age of nerves; but I think that these cases can be well and successfully treated by the general practitioner on common-sense lines.

Of public, that is, borough and county asylums, I would speak in highest praise. Their buildings, their sanitary arrangements, their means for exercise, their workshops, chapels for divine service, recreation halls and playing fields, libraries, &c., are excellent, and they are generously supplied with infirmaries for sick cases, special wards for suicidal and epileptic cases, and pathological laboratories for scientific research. But are they not too huge? Many receive over 1,000 patients, and some more than 2,000. Can the medical superintendents, however skilful and able, keep in medical touch with such numbers, or give due attention to individual needs? The subject is referred to by the Commissioners, who wisely remark that under these circumstances "a medical superintendent can only administer, he cannot personally apply, and watch the effects of medical treatment."

Registered hospitals are now thirteen in number, and accommodate about 2,500 patients, chiefly of the middle classes. These are all private patients, with the exception of some fifty patients chargeable to the City of York. These hospitals very efficiently discharge their purpose, and are well officered and manned. They are endowed, and mostly strive to fulfil the charitable intentions of their founders. They are, however, for private patients, rather large, and therefore perhaps somewhat lacking in home-life amenities. There is still room for institutions of this sort, where adequate treatment and comfort can be supplied for educated persons of small means.

The licensed houses or private asylums are now sixty-eight in number; twenty-three of these are in the Metropolitan district, and under the immediate supervision of the Commissioners, and are visited by them six times a year; and the remaining forty-five are provincial, and are licensed by the Quarter Sessions, and are visited by the justices twice a year.

Of these asylums I have an intimate knowledge, having lived in one all my life, and having been preceded by my father and grandfather. It may be said, I fear, that in former days some of the proprietors of these asylums were eager for gain and tried to make fortunes, instead of moderate profits. This was no doubt the cause of disgrace to some of the old houses. Now, I believe, this unhealthy desire for large gains does not obtain, and furthermore, I am of opinion that what must be called the competition with the registered hospitals, endowed as they are, has had good effects, and it is, I think, evident that none but the best of the private asylums will eventually survive. But these will continue to supply a want and hold a place that no public institution can so naturally fill.

I believe that the licencees of these houses should solely be medical men of training and experience. They should reside with their families on the premises, and should make it their home as well as that of their patients. It should never be lost sight of that the cure as well as the care of those entrusted to their charge is to be aimed at, and this, it seems to me, can in no other way be ensured.

The patient should be received as a guest and treated as a friend. He should be, if possible, unmindful of being the

inmate of an asylum. Nothing that can possibly be devised by experience and discretion should be left undone to gain his confidence and even affection. The attendants should be trained to avoid hurting feelings or wounding pride. To control and to govern is in many cases to contribute to cure, but even in this it should be possible to show its justice and necessity, and I believe that treatment such as this is applicable to every form of mental derangement, depression and decay.

There is much that one would like to say on the more practical medical points connected with mental disease, but time is short, and a series of lectures, if I were competent to give them, would hardly suffice. The causes of insanity are manifold; modern civilisation makes calls upon human beings unknown in a less complex mental environment; but it is sadly true that to the evils and vices of this civilisation disease, mental and physical, is mostly to be traced.

Causes may be physical, physiological, or moral: chief among physical are the toxic, and alcohol is by far the most common, especially among the pauper classes. In spite of all that is done to promote the cause of temperance, multitudes ruin themselves, their families, their bodies and minds, by this fearful indulgence. The physiological causes are the well-known ones of puberty, the puerperal state, change of life, and senility; and the moral causes are those producing any emotional strain, such as grief and worry. Besides these, there is the influence of "heredity," which causes an instability of the nervous organisation, and may be evident by the appearance of neuroses and anomalies.

Much can be done by the medical profession, I believe, in the way of prophylaxis, especially in the case of families with nervous inheritance. Let the medical adviser, if possible, see that the children are developed by regular diet, sleep, and exercise, forbid stimulants to children, and try and steer them through the period of puberty.

The classifications of insanity have been numerous, and many authors have shown some difference of opinion, but I would incline to accept the most simple, on the principle which denotes the form or type of the disease. Many of the classifications seem to be, though good and scientific, rather complicated for general use. Mania, melancholia and de-

mentia, with their various subdivisions, circular insanity, chronic delusional insanity, or paranoia, paralytic insanity, imbecility and idiotcy, these are readily recognised.

Gentlemen, I have tried in these fragmentary notes to give a wide view of a great subject. The imperfections are very obvious, and I fear that there is nothing very new or original, but I think I have proved that the science of psychology, though it has moved tardily, has made and is making progress. Most European countries, and certainly America, have progressed in their knowledge of the phenomena of insanity. In England the subject is being taught in our medical schools and colleges. I would like to see the public educated to know that temperance, sobriety, and chastity are the essentials of Christian civilised communities. We may live to see further changes and, I hope, more successful treatment.

SCARLET FEVER: ALSO CALLED SCARLATINA.[1]

By Richard J. Reece, M.A., M.D.

Lecturer on Hygiene and Public Health, Medical Inspector to the Local Government Board.

[This lecture is a compilation from the published work of many writers, Whitelegge, T. W. Thompson, John T. Wilson, Klein, Mervyn Gordon, and others; more especially the Annual Reports of the Medical Officer of the Local Government Board have been laid under contribution, and several passages from these volumes are quoted *verbatim*.]

Scarlet Fever, also called *Scarlatina*, belongs to the class of acute infectious fevers.

History.—The complete differentiation of scarlet fever was established by Sydenham, whose description of the disease, as "febris scarlatina," was based upon experiences of it as it occurred in London from 1661-1675. Fagge points out that Sydenham makes no mention of sore throat as one of the symptoms of scarlet fever; and subsequently the distinct and

[1] A Lecture given on March 11, 1904, at the Post-Graduate College, West London Hospital.

separate character of the disease was more fully established by Heberden, Fothergill, Willan and Withering. According to Hirsch, "the oldest notice relating probably to an epidemic of scarlatina dates from Sicily, 1543." Prior to the time of Sydenham scarlatina had been regarded as a variety of measles, only in the last hundred years has it been definitely distinguished from diphtheria. Though it is evident that scarlatina has long been prevalent in Europe, its introduction into many other parts of the world seems, as in the case of measles, to have taken place in comparatively recent times; thus it was apparently unknown in North America until about 1735, and it did not become prevalent in South America until 1830: according to Hirsch it reached Australia and Polynesia in 1848. It is widely diffused in Northern and Western Europe, and apparently recently it has invaded South Africa, but it has failed to establish itself in North Africa or any part of Asia except Asia Minor. In England it is more prevalent in urban than in rural districts, mining districts, and several large manufacturing towns being most affected of all. This is probably accounted for by the greater facilities for receiving and transmitting infection from person to person.

Incubation Period.—The incubation period may be as short as forty-eight hours, rarely less, though it may be in certain instances as long as five, or even six days; such late cases must always be received with a certain amount of caution. The essential point is, that with considerable confidence, parents, schoolmasters, and others concerned in the custody of children, may be told that if the first case is properly isolated, and the necessary measures for disinfection scrupulously carried out, the safety of the other members is practically secured if no second case has arisen before the end of the week.

The scarlatinal attack is sudden, and in most cases develops with considerable rapidity. Vomiting, rigors, headache, pyrexia and sore throat are prominent symptoms. As a general rule, severity of initial symptoms implies severity of attack. In some mild cases the rash may, however, be the earliest and most prominent symptom.

It is usual for the rash to appear within twenty-four to

forty-eight hours of the attack. It is at first punctiform, but becomes diffuse; it is usually seen first about the neck and chest, and generally spreads over the whole body, it increases for one or two days, and begins to decline in two or three days more. Desquamation begins as soon as the rash disappears, the chest being the first and the hands and feet the last parts to clear. True relapses occur in one or two per cent. of the cases, usually a month after the onset.

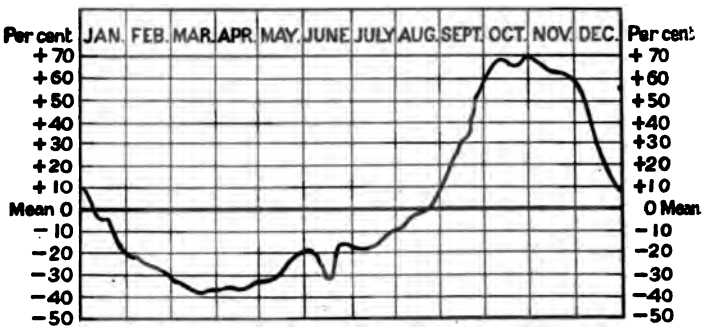


DIAGRAM I.—England and Wales: Scarlet Fever. Seasonal mortality curve. All ages and both sexes.

Infectivity.—Infection is given off from the first onset, and although mere "peeling" has probably little to do with it, as a general rule, it may be taken that infectivity lasts until the end of desquamation, a period that is seldom less than five weeks, and not infrequently exceeds two months. Hospital experience has abundantly proved that no precautions as to disinfection, &c., render it safe to discharge a patient until every trace of desquamation has disappeared from the feet, and it now seems that still longer isolation may be necessary if any symptoms remain, such as discharge from the nose or ears.

By far the commonest mode of infection is from a previous case, either by contact, by proximity, or by means of infected articles. The virus is probably inhaled, the seat of infection being the tonsil; possibly also it may be swallowed. Aërial convection for short distances—across a room for example—may be assumed to occur readily, but there is no proof of radiation of infection from scarlet fever hospitals.

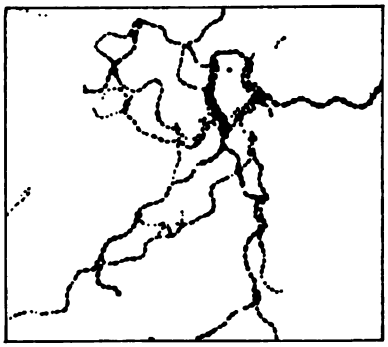
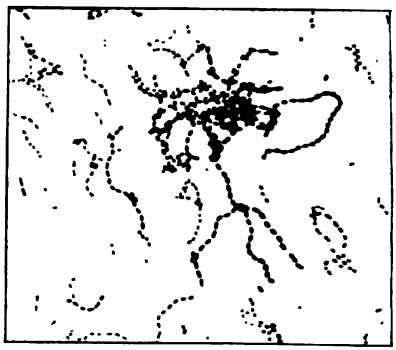


FIG. 1.



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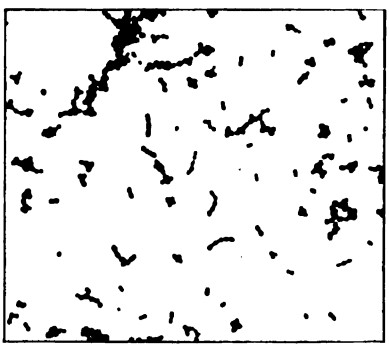
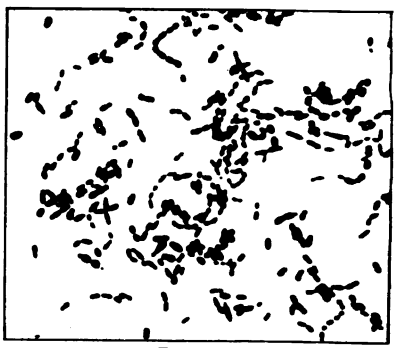


FIG. 3.



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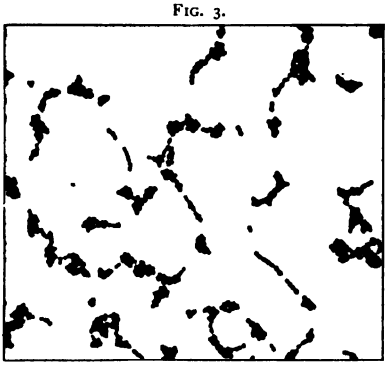

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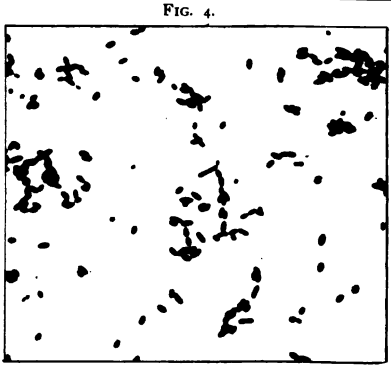

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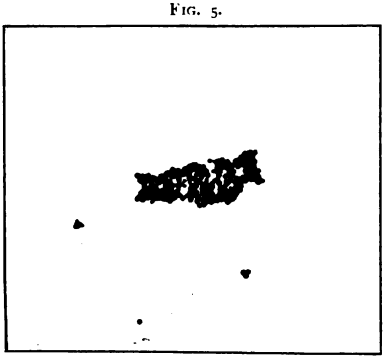

FIG. 7.

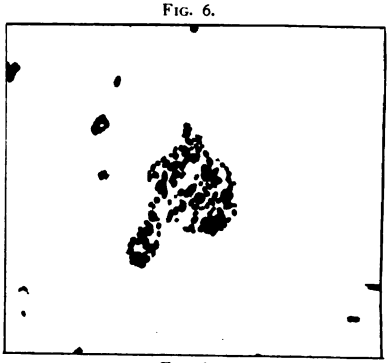

FIG. 8.

All magnified 1,000.

FIG. 1.—S. pyogenes isolated from $\frac{1}{250,000}$ cc. of the tonsillar secretion on the second day of scarlatina. Growth in BROTH 1 day at 37 C. The individuals composing the chains are round cocci.

FIG. 2.—S. Scarlatinæ isolated from the same culture as fig. 1, and kept under the same circumstances. Some of the individuals show a slightly bacillary tendency.

FIG. 3.—*Serum* growth, 1 day at 37 C. of S. Pyogenes shown in fig. 1. The individuals are cocci entirely.

FIG. 4.—Similar growth of S. Scarlatinæ shown in fig. 2. Compare the bacillary tendency here seen with the last figure.

FIG. 5.—*Agar* growth, 1 day at 37 C. of S. Pyogenes shown in figs. 1 and 3. Here again coccus forms are the rule.

FIG. 6.—Similar growth of S. Scarlatinæ shown in figs. 2 and 4. The bacillary tendency is here again seen.

FIG. 7.—*Gelatine* colony, 14th day of the S. Pyogenes shown in figs. 1, 3 and 5. The individuals are coccus entirely.

FIG. 8.—Similar colony of the S. Scarlatinæ shown in figs. 2, 4 and 6 Some spindle and bacillary forms are seen.

STREPTOCOCCUS SCARLATINÆ.

FIG. 9.—The S. Scarlatinæ shown in fig. 18 on recovery from spleen of mouse. *Serum* growth, 1 day 37 C. Bacillary forms are seen as before. Compare 4.

FIG. 10.—The same organism, on recovery from a further mouse. *Serum* growth, 1 day 37 C. Bacillary forms are seen as before. Compare 4 and 9.

FIG. 11.—The same organism. BROTH 1 day 37 C. The Streptococcus phase is brought out by the fluid medium.

These Plates are reproduced from the 30th Annual Report of the Medical Officer of the Local Government Board, 1900-1.

FIG. 9.

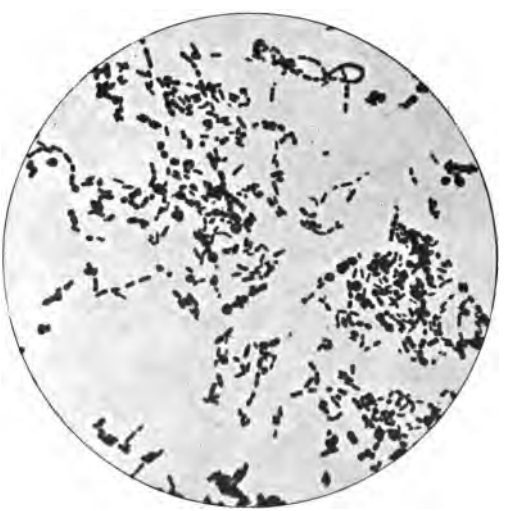

FIG. 10.

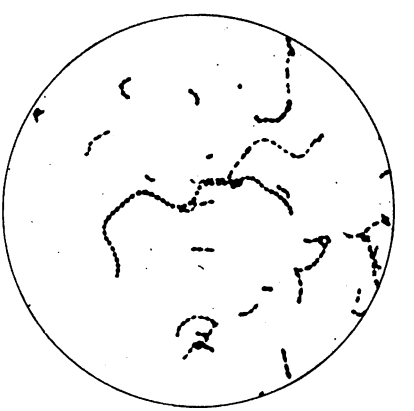

FIG. 11.

Magnified 1,000.

The virus of scarlet fever retains its vitality for long periods, possibly years, under favourable conditions, and can be lodged in crevices or carried in garments.

Relation to Season.—There is a well-marked relation of scarlet fever to season. In England the mortality is at its minimum in March and April, and rises to a maximum in October. In New York, however, the curve is almost reversed, the minimum being in September and the maximum in April.

Meteorological Conditions.—So far as meteorological conditions are concerned, it would seem that the tendency to spread is increased by atmospheric humidity and the absence of wind, but checked by heavy rainfall.

Soil.—There is nothing definitely known as to "soil" having any direct relationship to scarlet fever.

Water.—Neither is there any evidence to show that it has ever been spread by drinking water, but milk has been conclusively proved to act as a vehicle of infection. This will be referred to later.

It is doubtful whether insanitary surroundings, such as defective drainage and the like, have any predisposing influence as regards this disease. It is less doubtful, or rather more probable, that they may seriously prejudice the chance of recovery.

Squire states that scarlet fever can be inoculated.

Influence of Sex.—Females are upon the whole more liable to scarlet fever than males, but the attacks are somewhat less fatal, and hence up to ten years of age the mortality is higher among males than among females. At ages above ten the female deaths exceed the male, owing no doubt to the greater frequency of attack among women who have the charge of children.

Age.—Children under one year of age, and especially under three months, are comparatively rarely attacked, but the incidence rapidly increases and reaches its maximum in the fourth year of life. After that period it declines steadily year by year.

About 45 per cent. of the attacks occur at ages under five years, 40 per cent. between five and ten years, and 11 per cent. between ten and fifteen years.

In London in 1902 the distribution was slightly different,

32·3 per cent. of those attacked were under five years of age, 38·2 between five and ten years.

The average severity of attack, measured by the proportion of fatal cases, is greatest in infancy, or in the second year of life, and diminishes as age increases, but there is an apparent increase in the severity of the very few cases that occur in adults after the fifteenth or twentieth year. Ninety per cent. of the deaths occur at ages under ten years, and 65 per cent. under five years.

The lessened liability to attack with increasing age is greater than can be accounted for either by protection afforded by previous attacks or by diminished exposure to infection, and must be attributed to a real and increasing insusceptibility.

There is therefore a double gain in shielding a child from infection during the first few years of his life. Every year of escape after the fifth leaves him less and less susceptible, and secondly, if he should be attacked, every year that the attack is delayed reduces the danger to life, and also the risk of formidable complications that may become chronic and disabling, even if not immediately fatal.

Milk Supplies.—Until comparatively recent years, apart from immediate infections from a previous human case or mediate infection from antecedent human cases, or through the agency of fomites, the possible methods of scarlet fever transmission were generally regarded as exhausted.

Apparently it was not contemplated that the mediate method referred to involved any multiplication of the organism outside the human body, but simply its storage and conveyance.

In the year 1870, however, Dr. M. W. Taylor opened the way to a very great advance in our knowledge of the natural history of scarlet fever. While studying an outbreak of that disease, which occurred in the town of Penrith, he observed that the main incidence of the disease was upon the customers of a particular dairy. Following up the suggestion thus gained, he found that, prior to the general outbreak in the town, a child at the dairy in question had suffered from scarlet fever, and that not only was the milk taken into the infected dwelling before distribution to the customers, but that the child's mother, while acting as sick nurse, also at

times milked the cows. These facts, coupled with the circumstances that many of the sufferers in the town had no communication with the dairy, except through the medium of the milk, seemed irresistibly to point to milk as the vehicle of the infection. Subsequently other observers recorded like experience elsewhere.

So far, however, the milk was generally looked upon as having become accidentally infected by human agency.

Scarlet Fever in Animals.

Later investigations by Mr. W. H. Power, then a medical inspector, and now the Medical Officer of the Local Government Board, and Dr. Klein, seem to have shown beyond doubt that human scarlet fever may be produced by milk which owes its infective property to an ailment of the cow.

The first instance was in 1882, when Mr. Power reported on an epidemic outbreak of scarlet fever in St. Giles and St. Pancras. The disease was distributed with a milk service from a Surrey farm. In this case two facts could be affirmed: the one, that a cow recently come into milk at this farm had been suffering from some ailment, seemingly from the time of her calving, of which loss of hair in patches was the most conspicuous manifestation; the other, that there existed no discoverable means by which the milk, which had coincided with scarlatina in its distribution, could have received infective quality from the human subject.

It was deduced from this, that "distrust must be placed on the universally accepted explanation, that milk receives infective properties directly by human agencies," and further, that "the question of risk of specific fouling of milk by particular cows, suffering, whether recognised or not, from specific disease, was seen to be arising."

This view received striking confirmation and proof, by an outbreak of scarlet fever that occurred towards the end of 1885 and the beginning of 1886, in the North of London. It was investigated by Mr. Power and his report is published *in extenso* in the Report of the Medical Officer of the Local Government Board for 1886.

Mr. Wynter Blyth, the Medical Officer of Health for Marylebone, had in December, 1885, observed a sudden outbreak of scarlatina in his district to be associated with

the distribution of milk coming from a farm at *Hendon*, and had found reason for believing that the disease had prevailed exclusively among customers furnished with milk from that source. Mr. Power, on a more extended inquiry, found that a similar prevalence of scarlatina had occurred about the same time in other parishes in and near the metropolis, which were furnished with milk from the same farm. After careful inquiry Mr. Power could with certainty exclude any contamination of the milk from a human source, and say that nothing of the kind known as "sanitary" conditions could have had any concern with the infectivity of the milk. Mr. Power showed conclusively that only certain sections of the milk supplies of this farm, and finally only certain cows from which these sections of milk were derived, had any relation to the observed results.

The matter is summed up by the Medical Officer of the Local Government Board in his annual report as follows:—

"In the end he (that is, Mr. Power) has demonstrated beyond reasonable doubt the dependence of the milk-scarlatina occurring from day to day during December, on a diseased condition of certain milch cows at the farm, a condition first introduced there in the previous month by some animals newly arrived from Derbyshire; and he finds strong circumstantial evidence for believing that the latter phenomena of this dependence were brought about through the extension of the diseased condition of one set of animals to another set, after the fashion of an infection."

The nature, the pathology, both macroscopic and microscopic, and the bacteriology of this cow disease—which from the name of the place where the farm was situated has become known as the "*Hendon cow disease*"—was carefully investigated by Dr. Klein. He showed that all the lesions were consistent with the belief that the cows suffered from a disease analogous to, or identical with, the scarlet fever of the human.

The facts were not accepted by the Agricultural Department of the Privy Council, which made inquiries into the case a year after it had happened, nor were the veterinary profession as a whole convinced.

The disease, as it presented itself in some of these Hendon cows, consisted in the presence of sores and scurfiness in different parts of the skin, with loss of hair in patches, an

eruption leading to the formation of a sore covered with dark brown scab, or crust, on the udder and teats, and a visceral disease, notably of the lungs, liver, kidneys and spleen, which although milder in character, very much resembled the visceral lesions occurring in cases of human scarlet fever. By experiment it was shown that the matter of the eruption of the udder is possessed of infective power, inasmuch as on inoculation into the skin of calves, the same eruption is reproduced.

Disease of the udder and teats of the cow apparently occurs in several distinct diseases of the cow. Thus in the cow-pock of Jenner, there is ulceration of the teats and udder. It would seem that these diseases have not been definitely worked out by the veterinary profession. However, since the Hendon outbreak of ulcerative disease in the teats and udder of milch cows, connecting the milk with the outbreak of human scarlatina, several such outbreaks have become known and investigated—notably one by Dr. Russell—then Health Officer in Glasgow.

It is difficult to quite understand the attitude of the veterinary profession with regard to this question, as to whether the lower animals can or cannot suffer from scarlet fever or an analogous disease.

Professor Thomas has stated that a disease corresponding to scarlet fever has been met with in horses, dogs, cats, swine, and other domesticated animals. If all these animals do so suffer we must, in the future, enlarge our views as to the causes of scarlet fever. But we are fairly certain that the monkey can not only contract scarlet fever, but that the disease may prove fatal to it. Thus, in an outbreak of milk-borne scarlet fever at Wimbledon in 1887, some of the specifically infected milk supplied to a certain house was given to a female monkey. She became suddenly ill at the same time as the other inmates of the house where she resided were attacked by scarlet fever, *and she died.*

Klein, who made a *post mortem* of the body, found it affected in exactly the same way as would have been the body of a human being who had died from scarlatina, and from it he extracted the streptococcus of scarlatina, or the Hendon Cow Disease. This monkey has assumed posthumous fame as the "Wimbledon Monkey."

There is one point of interest in connection with these milk scarlatinal cases. Secondary cases rarely, if ever, appear in the invaded households; that is, the patient sick of milk scarlatina does not appear to be infective to others, or at any rate, to a very small extent. This raises the question as to whether the micro-organism, in its passage through the cow or the milk, has not been in some way operated upon so as to reduce its virulent properties. Very few deaths occur in milk scarlatinal epidemics. The modification in virulence of the small-pox virus for the human, by passage through the cow, may have its analogy in these cases of scarlatina.

Surgical Scarlet Fever.

Attacks of what appear to be scarlatina occasionally follow surgical operations, and it is usually said that such injuries increase susceptibility to that disease. At the same time it must be remembered that some of such cases are probably not scarlatina at all, but septic conditions due to a streptococcus infection in fact. Cases of the kind have been observed under circumstances which seemed to put scarlatina infection out of the question. It appears, too, according to McLeod, that so-called surgical scarlatina is met with in India, where scarlatina is practically unknown. The belief in a close relationship between scarlatina and a form of puerperal fever, in the sense of the infection of the former being capable of originating the latter, has been widely held. This, again, is probably explained by the streptococcus infection, as will be more readily understood when the bacteriology of scarlatina comes to be considered. It is, however, certain that in some cases, in which recently confined women have been freely exposed to the poison of scarlatina, no harm has resulted.

Protection.—One attack usually confers immunity throughout life, though well marked second and even third attacks occasionally occur. According to Dr. Squire, persons, too, who have previously suffered from the disease, "when much exposed to it may have sore throat, or other signs of partial sickening, sufficient to start the disease elsewhere." Such modified second attacks quite likely renew the protection of the persons thus affected.

Increasing Mildness of Type.—Scarlatina, as we know it now, is a disease of comparatively mild character, and this mild-

ness of type is increasing. One has only to talk to medical practitioners, whose experience extends back forty to fifty years, to realise the enormous difference that has taken place in the virulence of the disease. These elder brethren of ours tell us that in their younger days scarlatina was a disease to be dreaded, that if it gained access to a house it was regarded as a calamity; of five inmates one was nearly certain to be killed, and one or two of the others permanently injured for life. They speak in no uncertain terms as to this.

Even in the experience of those of us who can look back twenty to twenty-five years the type of the disease, as we see it now, and as we saw it then, differs remarkably. One thing is certain, with the exception of phthisis, no disease has contributed more to the reduction in the general death-rate during the past twenty-five years than scarlatina.

As to the cause of this increasing mildness of the disease the medical profession is divided in opinion. I have only time to touch lightly upon one or two of the points. Those who wish to study this question, I would refer to a most excellent paper entitled: "A Contribution to the Natural History of Scarlet Fever, based upon Official Statistical Records of Mortality and Morbidity," by John T. Wilson, M.D., Medical Officer of Health for Lanarkshire. It is published in the Supplement to *Public Health*, February, 1897.

The accompanying diagram (Diagram II.) is Dr. Wilson's brought up to the present time.

There are physicians who attribute the reduced fatality of scarlatina in their time, as compared with previous years, to their method of treatment, but this is quite at variance with the results indicated by close inquiry into the matter.

Again, some would attribute it to the isolation of the scarlatinal sick in hospital, and the better hygienic surroundings in such institutions. But we find when comparing one country with another, that there are some which have not yet practised hospital isolation, *e.g.*, the United States, and the mortality has fallen, just as in those which have hospital isolation. On general grounds we may safely assert that preventive measures, especially hospital isolation, where exercised, must have had some influence in lowering the mortality. By isolation, dissemination of infection is checked, and prevalence of the disease diminished. By proper hospital

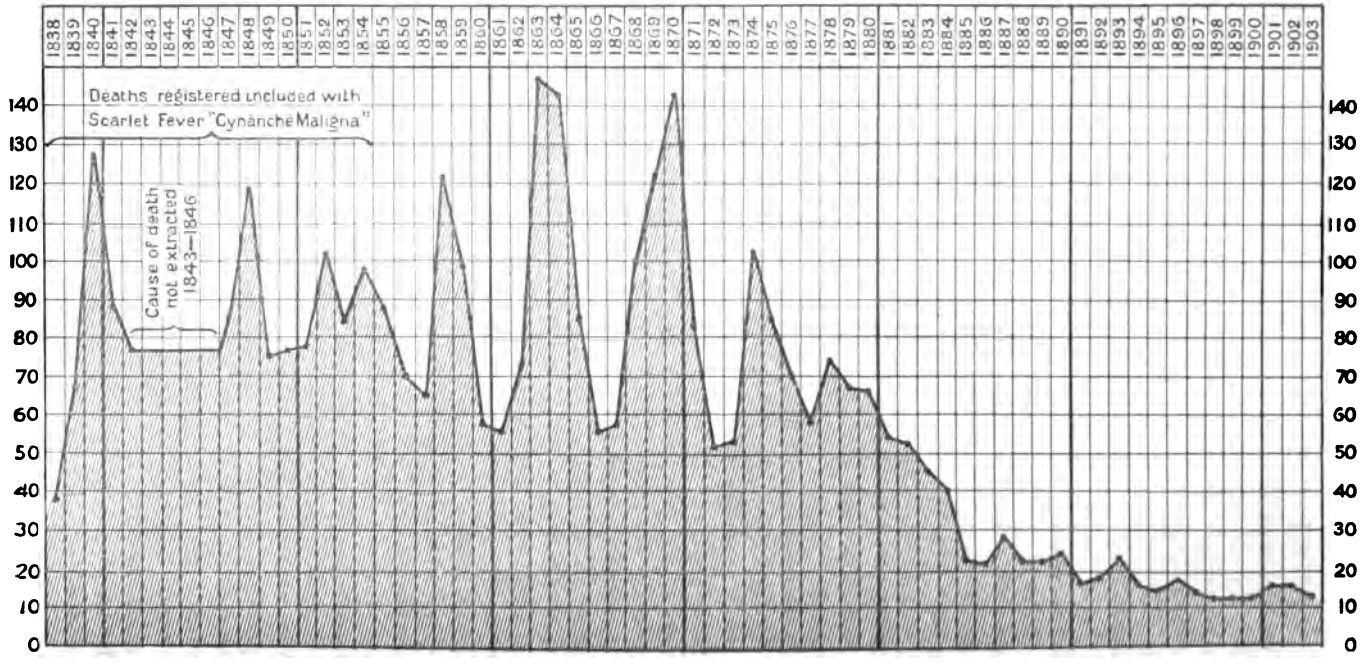

DIAGRAM II.—England and Wales: Scarlet Fever. Deaths per 100,000 Population.

treatment fatality is lessened, and there is evidence in the reports of health officers that these benefits have, in some measure, been attained.

But the mortality began to fall before we had any hospital isolation in this country, and the decline has not been limited to these islands, as I inferred just now, but it has extended to all parts of the world where scarlatina is known to be prevalent and where records are available. In Norway and Sweden it has been later in occurring, and in Stockholm the amount of reduction has been very small.

Bacteriology.—The minute anatomy of scarlatina was begun by Dr. Klein in 1876, and in the Report of the Medical Officer of the Local Government Board for that year, will be found an account of his earlier researches.

In 1885, 1886, Klein found certain micrococci of definable character in the diseased tissues and organs of the Hendon cows, and he succeeded in growing these, with all their characters preserved, in a variety of culture media. And studying afresh, by the light of his accumulated experience of bacterial organisms, the minute anatomy of human scarlatina, Dr. Klein recognised in this disease the same organisms that he had found in the Hendon cows. He called this micro-organism the *Micrococcus scarlatinæ*. With the revision of the terms employed in bacteriology, this name became altered to *Streptococcus scarlatinæ*, the organism being of course the same.

He found: (1) The disease in man and in the cow alike is characterised by closely similar anatomical features.

(2) From the diseased tissues and organs of man and cow alike, the same micrococcus can be separated and artificial subcultures be made from it.

(3) These subcultures, no matter whether established from man or cow, have the property, when inoculated into calves, of producing in them every manifestation of the Hendon disease, except sores on the teats and udders, no doubt for the reason that the milk apparatus is not yet developed in calves.

(4) But the subcultures made from human scarlatina and inoculated into recently calved cows, can produce in those cows, along with the manifestation of the Hendon disease, the characteristic ulcers on the teats.

(5) The subcultures established either from the human or the cow disease, have an identical property of producing in various rodents a disease similar in its pathological manifestations to the Hendon disease of cows, and to scarlatina of the human subject.

(6) Calves fed on subcultures, established from human scarlatina, obtain the Hendon disease.

(7) Children fed on milk from cows suffering under the Hendon disease, obtain scarlatina.

The experimental work was continued, and Dr. Klein in 1887 showed how several kinds of streptococci could be distinguished one from another.

Many bacteriologists followed Klein in experimenting with scarlatina micro-organisms with varying results: they did not all arrive at identical conclusions.

In 1897, however, owing to the number of "return cases" of scarlatina—that is reappearance of scarlatina in a house to which a patient convalescent and supposed to be non-infectious has returned from hospital—further inquiry into the bacteriology of scarlet fever was undertaken by Dr. Klein at the instigation of the Local Government Board. He was assisted in this work by Dr. Mervyn Gordon, and the investigation has been continued up to the present time; a great deal of it has been done by Dr. Mervyn Gordon, and he has established a reputation for careful, thorough and accurate work, of a high scientific nature.

The interpretation to be placed on the facts available will not be certain before the streptococci of the normal throats and those obtained elsewhere have been thoroughly tested and classified, and this is now the task Dr. Mervyn Gordon has in hand.

Owing to the *Streptococcus scarlatinæ* clumping, or running into masses, it received on the Continent the name of *Streptococcus conglomeratus*, and there were observers who considered that this was distinct from the *S. scarlatinæ* of Klein. However, Mervyn Gordon has proved beyond all doubt that the two are identical, and that the micro-organism is polymorphic in character, and that it affects one or another shape according to the fashion in which it is cultivated. Bacteria of the streptococcus group are micro-organisms morphologically and biologically unstable, and the differentia-

tion of them is in consequence difficult, except in the hands of experts who have studied them for long periods. This fact can be the more readily realised by studying the annexed microphotographs of the *S. scarlatinæ* and *S. pyogenes*, which are reproduced from Dr. Mervyn Gordon's Report in the Annual Report of the Medical Officer of the Local Government Board, 1900-01.

It had been a very common belief that those scarlatina convalescents are in the main dangerous who, after apparent complete recovery, commence again to shed their cuticle, to "peel," as it is termed, a second time. This belief had long been doubted in the Medical Department of the Local Government Board, and in their investigation Klein and Mervyn Gordon have not as yet found any justification for it. At no stage of the peeling process after scarlatina have they detected in the cast-off cuticle any microbe which can be thought of as having concern in spreading the disease, and the like is true for the urine of scarlatina convalescents.

Mervyn Gordon obtained indication that the mucous membrane of the tonsil and pharynx is in all cases the site of the primary fatal streptococcus invasion; and as a result of his observations, he infers that the graver manifestations of scarlatina are due, not to a single, but to a twofold agency. That the infectious malady, "scarlatina," is to be referred to *Streptococcus scarlatinæ*, whereas the dangerous phases of this disease, and especially its fatal tendency, frequently result from supplementary invasion of the blood and tissues of the patient by *Streptococcus pyogenes*. Thus he ascertained that *Streptococcus scarlatinæ* is the micro-organism which is uniformly present and predominant in the mucous secretion of the tonsil of ordinary mild scarlatina; that in the nasal discharge of the disease this micro-organism is exceptionally, and in the ear discharge only rarely, to be detected; and that in the blood and organs of fatal cases, where its presence in abundance might have been anticipated, *Streptococcus scarlatinæ* is by no means universally found. On the other hand, *Streptococcus pyogenes* was found by him to be seldom absent from scarlatina at any stage of this disease. Frequently it was present in association with *Streptococcus scarlatinæ* in the tonsillar mucous of even uncomplicated benign cases at a very early stage of their attack, and in the nasal and aural

discharges of the disease it abounded, to the exclusion almost of other micro-organisms. Finally, in the blood and organs of fatal scarlatina, Dr. Gordon found *Streptococcus pyogenes* commonly present, in circumstances indeed, and under conditions, in the majority of cases, highly suggestive that death had resulted by the agency, not of *Streptococcus scarlatinæ*, but of this other, and septicæmic, micro-organism.

In all probability it is solely those persons who retain, or reproduce in their throats *Streptococcus scarlatinæ*, that are able, on their return from hospital, to infect with scarlatina other persons brought into close relation with them. And the experimental evidence goes to suggest that *Streptococcus scarlatinæ* is present, though not abundantly perhaps, in many instances in the throats of a large proportion of scarlatina patients up to a late stage of their convalescence, and even after seeming complete recovery. Whether, however, this streptococcus always maintains in such circumstances its full virulence is open to doubt, indeed, certain physiological tests by Dr. Gordon of this micro-organism when taken from the throats of scarlatina convalescents, tend to reassurance in this matter.

Flügge made experiments to show how infection could be carried by breathed air, and these experiments were developed by Koeniger, and they have been further extended by Dr. Mervyn Gordon.

The throat was gargled and the mouth washed out with an emulsion of *Bacillus prodigiosus*—an organism readily identifiable because of the red colouration of its colonies. The experimenter then spoke, or if in a large room or hall "orated," *i.e.*, spoke as if addressing an audience. It was found that the *B. prodigiosus* at the end of an hour's oration had infected agar-agar plates set at various distances and various levels throughout the hall. The possibility of *B. prodigiosus* being already present in the air of the room or hall was excluded in each instance by control experiments, made immediately antecedent to the actual experiment. The results obtained are very striking. They show how real is the possibility of air-borne infection occurring indoors from the dissemination of droplets of mucus from the mouth. Perhaps this mode of infection is of more importance in reference to return cases of scarlet fever than has hitherto been imagined.

Prevention.—The preventive measures available are isolation and disinfection. Considerable difficulty arises from the long duration of the infectious stage, covering, as it almost invariably does, a period of at least four or five weeks after the patient had ceased to be ill, and the absence of any ready means of ascertaining whether the *Streptococcus scarlatinæ* is present in the throat discharges. Nothing short of isolation in hospital can be relied upon. It is practically impossible in a working class household to maintain the requisite seclusion, and the comparative freedom and better hygiene in hospital are conducive to the patients' welfare. Nevertheless there are observers who hold the opinion that the value of isolation in hospital has been considerably overestimated.

Another source of difficulty is the occurrence of slight cases. There may be no noticeable symptoms beyond sore throat or slight desquamation, and yet any case, however slight, is capable of spreading infection. On the other hand, the short incubation period, and the early appearance and distinctive characters of the rash and other symptoms, render this disease much more easy to deal with than measles or whooping cough if proper facilities are afforded.

Schools are often instrumental in spreading infection, and it may be necessary to close them when epidemic prevalence is threatened. Scholars from infected houses should be excluded for at least six weeks, and only re-admitted upon a medical certificate, but a quarantine of a week is sufficient if the persons attacked have been removed to hospital and the premises disinfected.

Mervyn Gordon's experiments of the dissemination of microbic infection by the breath, at any rate of a person speaking aloud, show that no disinfection of premises is likely to be successful unless the wall paper of the room is stripped and the walls washed down. Attempts are now being made at the large fever hospitals to remove the convalescents from the infected air of the wards; that is, to remove the convalescents to separate wards, and to a less highly infected atmosphere. There would appear to be a double advantage in this. One being that the tonsillar mucous membrane is less likely to be infected again and again by the specific organism of the disease, and the other that the residual air

of the lung, which may possibly have infective properties, may become freed from these microbes. The necessity for adequate ventilation of these wards, rooms, &c., where scarlatinal patients are under treatment is obvious, and the advantage of convalescents having abundant opportunity for exercise in the open air, is not to be lost sight of.

Special care is needed in guarding milk supplies from risk of direct or indirect infection from a case of scarlet fever, and there should be no hesitation, if necessary, in stopping the business of a milk vendor whose premises are invaded, or whose workpeople are attacked by scarlet fever. At the same time it seems that boiling the milk removes all danger.

Mervyn Gordon writes: "As the mucous discharges have fallen so specially under suspicion in reference to the origination of certain cases of scarlet fever, it is clear that they are the first objects against which preventive treatment should be directed. It becomes necessary, therefore, to consider whether, by any means, such discharges can be prevented from occurring, and this at once raises the question of their cause."

Now if the bacteriological investigation which has been made of the nasal and aural discharge in scarlatina has had a disappointing result with regard to *S. scarlatinæ*, it has had a different result with regard to *S. pyogenes*. On two occasions, when Dr. Mervyn Gordon had opportunity of bacterially examining an aural discharge on the first day of the discharge, *S. pyogenes* was found to be present in one case in the majority, and in another in pure culture. He believes, therefore, that in, at any rate, a large number of cases of rhinorrhœa and otorrhœa, the organism to which these complications most probably owe their direct origin is the *Streptococcus pyogenes*.

The investigation of the pharyngeal mucus in early cases of clinically uncomplicated scarlatina, has shown that in a proportion of cases virulent *S. pyogenes* may be present therein, together with *S. scarlatinæ*, even on the second or third day of the illness, and almost as soon as the rash is fully out. Bacteriological observations therefore suggest that the most promising way to prevent rhinorrhœa and otorrhœa would be to apply antiseptic treatment, as a matter of routine, to the throat in every case of scarlatina, from the earliest stage of

the disease, no matter how mild the attack might clinically appear to be. There is, in fact, ground for supposing that if we could get efficient disinfection of the pharyngeal mucous membrane at the beginning of scarlet fever we should be able to prevent not only rhinorrhœa and otorrhœa, but also the fatal septicæmia to which the majority of deaths from scarlatina appear to be due, for the fatal issue in these cases has been shown to be due to a streptococcus invasion, starting from the pharyngeal mucous membrane.

Dr. Mervyn Gordon has commenced an inquiry to determine how far the mucous membrane of the throat can be disinfected, and the best means of doing so. So far he has experimented with several disinfectants. Those he has found most effective in reducing the number of organisms in the throat are potassium permanganate and liquor chlori. Two hours after gargling with sufficiently strong solutions of either of these two disinfectants, the number of organisms in the saliva is still reduced by over 80 per cent., as compared with the numbers present before gargling.

ABSENCE OF CASTS IN THE URINE OF NEPHRITICS.—A. Treutheim, after observing a case of nephritis with albuminuric retinitis, but without casts, performed some experiments to determine the cause of this phenomenon. He formulates his conclusions as follows: (1) There are cases of typical nephritis with albuminuria and albuminuric retinitis in which no casts can be demonstrated in the urinary sediment; (2) this condition, which must be considered as a cylindrolysis, is not due to the pepsin excreted by the kidneys; (3) the leucocytes of an existing cystitis, which have ascended to the pelvis and the uriniferous tubules, are not capable of dissolving casts; (4) pus cells from kidney abscesses cannot do it; (5) it is probably due to bacterial action (*Bacterium coli*). This may take place in the bladder, or with greater probability through ascension of the colon bacilli already in the pelvis or renal ducts; (6) the ferments of the *Bacterium coli* do not have the power alone of dissolving casts.—*Munch. Med. Woch.; American Medicine*, February, 1904.

Report of Proceedings.

The Annual General Meeting was held in the Board Room of the West London Hospital, on Friday, July 1. The Annual Report was submitted by the Senior Secretary, and on the proposal of Mr. Garry Simpson, seconded by Dr. Rice Oxley, was adopted and ordered to be printed in the Journal of the Society. The Treasurer's Financial Statement was accepted for printing.

A ballot was held for the Officers and Members of Council for the Session 1904-1905. The names of the gentlemen elected will be found on page 309.

Votes of thanks to the retiring President, the Treasurer and the Senior Secretary, concluded the proceedings.

The Mirror of Practice.

TWO INDEPENDENT SUPPURATING HYDATID CYSTS OF THE LIVER TREATED BY OPERATION.

By E. Percy Paton, F.R.C.S.

Assistant Surgeon to Westminster Hospital.

J. J., male, aged 38, writer, in the G.P.O., was admitted into Westminster Hospital under my care on October 17, 1903. His history was that twenty years previously he had noticed a lump in the left epigastric region, which gave him no pain, and in the course of a month or two disappeared. Six years ago he again noticed a lump and consulted Mr. Openshaw, who advised an operation; but as it gave him no trouble he did not have it done. About nine weeks before admission he began to have attacks of pain on the opposite side of the epigastric region to the seat of the old swelling, which in the interval had given him no trouble; this pain continued on and off and was thought to be due to gallstones by his medical advisor, Dr. R. F. Maxwell. He was at the same time a good deal jaundiced and his temperature was somewhat raised; however, he gradually improved and seemed to be recovering his health until the last two or three weeks before admission, during which time he had suffered from almost continuous pain (not however very severe), his temperature was a little raised at night and he had lost a good

deal of flesh. His previous history was unimportant and he had never lived out of England.

On examination he was found to be a spare man who had evidently lost flesh. The right side of the chest was normal, but on the left there was dulness at the base which extended in front almost to the nipple line, while behind it reached only to about the ninth rib; the heart was normal. The abdomen was full but not distended, the whole epigastric region was tender, but especially so on the left side, where the muscles were also tense; there was also an area of dulness here which extended about half way to the umbilicus; over this area there was marked resistance, but the exact limits of the swelling could not be defined; the area of liver dulness on the right side extended somewhat lower than normal. His temperature at night was between 100° and 101°, and his pulse-rate 100. The day after admission a blood count was made as follows: leucocytes, 21,000; polymorphs, 84 per cent.; monomorphs, large, 6 per cent., small, 8 per cent.; eosinophiles, 2 per cent. The diagnosis was made of suppuration in the upper part of the peritoneal cavity and amongst other causes hyatid cyst was considered as a possible one.

On October 22 an incision was made over the swelling in a vertical direction, the fibres of the rectus muscle were separated and the abdomen opened, exposing a mass which consisted of liver (left lobe), intestines, stomach, and omentum matted together. The general cavity was shut off with sponges, and on separating the adhesions a cavity was opened of which the main walls consisted of the left lobe of the liver and the under aspect of the diaphragm, this cavity contained about a pint of thin pus in the midst of which were numerous hydatid daughter cysts. The cavity was irrigated and then loosely packed with gauze, some gauze being disposed around the opening so as to shut off the general peritoneal cavity, the major part of the wound was then closed with sutures.

The patient was at once much relieved and his temperature came down to normal. The gauze was gradually removed, a few inches at a time each day, until it was all out, when the opening was maintained by a tube; the discharge was at first very copious and consisted of thin serum mixed with bile, the quantity of bile in it, however, gradually diminished. At the end of a fortnight the man seemed still to be doing well, but he then began again to have a temperature at night; this was thought to be due to inefficient drainage and a larger tube was therefore put in and the cavity irrigated daily. On October 9 the blood was again counted, leucocytes were 17,400. As he did not improve this was done again on October 19, leucocytes 18,500; a careful examination, how-

ever, did not reveal any cause for the want of improvement or for the rise of temperature at night to 100° or 101°. At the beginning of November things were much in the same condition, when it was found that the liver dulness on the right side was increasing and a swelling about the size of a tangerine orange was made out in connection with this increased dulness; so on November 14 an incision was made over this swelling and a cavity exposed opened, containing about four ounces of pus mixed with daughter cysts, bounded by the right lobe of the liver and the abdominal wall and having no connection with the cavity previously opened; this was dealt with in the same way as was previously done with the other cavity. The temperature now speedily fell to normal and the patient rapidly improved. The last opening very quickly closed, but the first one became reduced to a sinus about four inches long, which discharged a small quantity of serum and continues to do so to this date (June, 1904). He has been advised to have this scraped, so as if possible to close it, but as this would involve his giving up work for a time, and as the sinus gives him very little trouble he prefers to leave it as it is; in every other respect he is very well.

Hospital Notes.

By Charles Buttar, M.D.

In the following case Mr. Bidwell recently performed decapsulation of the kidney:—

H. W., an unmarried female, aged 38, was admitted under Dr. Hood on July 16 of this year, complaining of attacks of pain in the left side. In August, 1903, she was in the hospital under Dr. Hood for an attack of enteric fever. The pain began shortly afterwards, being at first worse at night, and then coming on when stooping or moving. Latterly, although slight pain was continuous, there had been more severe attacks in the morning and in the early evening. The patient felt ill, had attacks of chilliness, and passed only small quantities of water. There was no other history of illness. On admission the temperature was 101·4°, the pulse 116 and regular, the tongue furred, and the bowels constipated. The chest was normal. There was marked tenderness in the left lumbar region, where the pain was situated. The kidneys could not be felt. About 20 ounces of urine were passed in the twenty-four hours, acid in reaction, specific

gravity 1032, and containing albumen. Nothing definite was shown by the X-rays.

On July 20 a few red corpuscles were found in the urine after centrifugalising. These were not detected subsequently. On July 28 30 ounces of urine were passed, containing 223·1 grains of urea, the percentage being 1·7.

The patient was transferred to the care of Mr. Bidwell, who on August 5 made an incision about 3½ inches in length in the left lumbar region. The kidney was exposed and explored. It had a congested appearance. No stone was found. The capsule, which was very adherent, was then stripped from the kidney, and the wound subsequently closed. On August 14 the stitches were removed. The wound healed well, and the patient was able to get up on August 22. The day before the operation only 9 ounces of urine were passed, containing 195·2 grains of urea. The quantity of urine continued small for four days after the operation, and then rapidly increased. On August 12, 45 ounces were passed, containing 237 grains of urea. On the 14th, 44 ounces containing 269·5 grains. On the 16th, 50 ounces containing 328 grains. On the 24th, 40 ounces contained 314 grains. On August 27 the patient was discharged, free from pain and in good health. The urine was normal in amount, but still contained a slight trace of albumen. The temperature fell immediately after the operation, and did not rise again.

Three Cases of Gastro-enterostomy.

S. B., a widow, aged 61, was admitted under Mr. Bidwell on April 5, 1904. She complained of vomiting and pain in the abdomen. For some years past she had suffered from indigestion, which had become much worse for the last eighteen months. The pain increased after taking food, and she usually vomited about three hours later. At times she had a gnawing sensation and a desire to eat, and she was usually constipated. She had emaciated considerably, and was a pale, anæmic, and wasted woman. In the epigastrium, rather to the right of the middle line, was a tumour, not movable, and with pulsations communicated to it from the aorta. For two days saline enemata with brandy were given. On April 7 an incision 2½ inches was made in the epigastrium, just to the right of the middle line. On exposing the stomach a growth was found, situated about 2 inches from the pylorus, and extending some distance towards the cardiac end of the stomach. A portion of the organ, free from disease, was drawn up, and to this was stitched the jejunum by Halsted's method. Before tightening these sutures the stomach and

jejunum were incised. The sutures were then tied, and the abdominal wound closed in layers. The patient rallied well after the operation. She was fed for a few days by nutrient enemata. On April 19 the stitches were removed. The patient was discharged on April 30. She still had occasional vomiting.

K. C., female, aged 44, was admitted under Mr. Bidwell on June 3, complaining of pain in the abdomen after food, and vomiting. She had been subject to these attacks, with occasional hæmatemesis, for twenty years. She was a pale, thin woman, with flaccid abdominal walls, and some tenderness over the pyloric region. The stomach was considerably dilated, and the left kidney movable. On June 6, early in the morning, the patient's stomach was washed out. Later an incision through the fibres of the rectus, about 3 inches long, was made 2 inches below the xiphoid cartilage. The stomach was dilated, although there was no marked contraction of the pylorus; but a scar of an old ulcer was found near the lesser curvature. The jejunum was attached to the anterior surface of the stomach by Halsted's method, and the abdominal wound closed in layers.

After the operation the patient vomited some blood-stained fluid several times during the day. On June 16 the stitches were removed, and the patient left the hospital on June 25, free from pain.

L. G., a domestic servant, aged 29, was admitted for epigastric pain and vomiting on June 15. Three or four years ago she suffered from anæmia, and began to have severe pains immediately after taking food. Frequently the pain was accompanied by vomiting. There had never been any hæmatemesis. Since Christmas, 1903, the pain had become worse, so that before admission she was unable to keep any solid food down. The patient was thin and anæmic. The stomach was dilated, reaching to the umbilicus. There was tenderness over the epigastrium. On June 16 Mr. Bidwell made an incision 4 inches long through the left rectus muscle. On exposing the stomach, the pylorus was found to be stenosed, and there was a scar of an old ulcer in its vicinity. The posterior surface of the stomach was exposed by bringing the transverse colon and omentum out of the wound and turning it upwards, after which a hole was torn in the transverse mesocolon, and the edges of the hole were sutured to the stomach. The front part of the jejunum was then attached to the posterior wall of the stomach by Halsted's method. After the operation there was some vomiting, but no hæmatemesis. The patient felt very little pain. The wound healed well. The stitches were removed on June 25, and the patient left the hospital on July 11.

The two following severe and chronic cases of psoriasis have been under the care of Dr. Abraham in Hull ward :—

F. H., female, married, age 60, was attended for psoriasis two years previously to admission. Twelve months later the condition recurred, and the joints began at the same time to be stiff and painful. For a month before admission the soles of the feet had been thickened and tender, so that she was no longer able to walk, the condition being one of extreme tylosis. She was admitted to the hospital on May 3. In childhood she had suffered from St. Vitus' dance, and some years ago she had trouble with the kidneys or bladder. The dorsal aspect of the skin all over the limbs was covered with oval red patches with thickened scaly surface. The condition affected also the matrix of the nails, which were irregular, horny and tender to the touch. The epidermis of the soles of the feet was much thickened. There were a few small patches of psoriasis on the back, but none on the chest or abdomen. The rash was most marked on the elbows, knees, and part of the legs. The left knee and the small joints of the toes and fingers showed well-marked osteo-arthritic changes, without much pain, but with a good deal of stiffness. The right shoulder and elbow were also swollen and painful. The bowels were constipated. The patient had no teeth. She was treated with baths of creolin, and with strong creolin ointment. Internally she took a salicine mixture, commencing with gr. v. three times a day. Under this treatment the patient improved considerably, and left the hospital on June 8, *i.e.*, in about a month, nearly free from the skin affection, and quite able to walk.

M. E. G., female, aged 39, was admitted on July 18. Her father died of "asthma," and her mother of "chronic rheumatism." Three of her cousins were said to suffer from a skin disease similar to her own. At the age of 13 the scalp began to be affected with a scaly rash. Shortly afterwards the axillæ were attacked. Later the rash appeared on the limbs, and she had not been free from it since then, except for very short periods. For the last seven years the patient had suffered from osteo-arthritis, and both hands were now much deformed. On admission there was a general eruption of psoriasis, most marked on the exterior surface of the limbs. The scalp was completely covered with scales. The patient's hair was cut short, and ammoniated mercury and soap ointment applied to the scalp. A creolin bath was given daily, and strong creolin and salicylic ointment applied to the rash. Internally salicin was administered, and subsequently for a short time arsenic and iodide of potash. The patient was discharged on September 3 much relieved, and with the skin nearly clear.

Remarks.—These two cases illustrate the benefit of free external treatment with creolin in ointments and baths, combined with salicin internally. Dr. Abraham is of opinion that it is particularly in such cases of psoriasis, when there is evidence of gouty or rheumatic trouble, that the latter drug is useful.

Notes from the Ophthalmic Department.

Among the cases of interest which have been under treatment during the past three months in the Ophthalmic Department was one of

Abscess of the Orbit.

The patient was a little girl aged 9, who came to the out-patient room. The mother stated that five days previously the child "got some grit" into her left eye. Since then the eye had gradually become more and more inflamed and painful. On examination there was much chemosis of the conjunctiva, which projected very prominently between the lids; the eye also was slightly proptosed, and both upper and lower lids were inflamed and œdematous. Any attempt to separate the lids caused much pain. The case, therefore, being one either of orbital cellulitis or panophthalmitis, chloroform was administered in order to admit of a thorough examination with a view to immediate treatment. As a first step, the outer canthus was freely divided; this relieved the tension on the swollen lids and gave more space for the necessary manipulation; next the chemosed conjunctiva was freely snipped with scissors, giving exit to a large amount of serum. The cornea was found to be intact, although the chemosed conjunctiva was already overlapping its margin; the anterior chamber, iris, and pupillary area appeared to be quite natural. The finger was next passed deeply backwards between the eyeball and the wall of the orbit, but no fulness was felt except on the outer side, where some slight thickening could be detected. Since it was possible that this might be due to deep-seated suppuration, a cataract knife—one which has never been, nor is ever likely to be, used for making a section—was passed backwards into the orbit parallel to the globe, between the latter and the outer canthus. Along the punctured wound thus made a director was thrust, and this was immediately followed by the escape of a drachm or more of pus. The external opening was further enlarged and the abscess cavity washed out with a 1 in 4,000 warm chinosol solution, afterwards a pad of chinosol, dipped in the solution, was applied and secured with a bandage and the

patient admitted into the hospital. The subsequent treatment consisted of chinosol fomentations every four hours. The following day there was some œdema of the lids on the right side, but this subsided in the course of the next twenty-four hours. There is nothing further of note to record in the history. The patient was discharged on April 30 with the left eye and orbit in a natural state.

This case was a little puzzling at first owing to the absence of any adequate history to account for the symptoms. Usually in children cellulitis of the orbit is due to a punctured wound thereof, caused by the child falling upon or against some foreign body. In one case which was brought for treatment about a year ago, a small girl fell upon her penholder while returning from school, causing a punctured wound in the left orbit, followed by suppuration. The pus was evacuated as in the manner above narrated, but the abscess cavity continued to discharge. The mother declared that the penholder had not been broken, nevertheless in the course of some days afterwards one inch and a half of the penholder was extracted from the wound. Another case, much more serious in its result, was that of a young girl, aged about 17. She was an inmate of a home for young servants, and having been reprimanded one day for some dereliction of duty, determined to have her revenge. This determination was carried out in a novel and drastic manner. After bedtime one evening she laid herself full length upon the floor of her room with her left eye opposite the space between the bottom of the door and the floor. There she remained until the cold draught to which the eye was exposed began to cause her pain. An acute attack of general cellulitis of the orbit followed. But by the time that she was brought to the hospital the cornea was beginning to slough. A large quantity of pus was evacuated, and there were hopes at first that the cornea might recover, but such was not the case, and eventually the eye had to be enucleated.

Reviews and Notices of Books.

EDMUND OWEN ON CLEFT-PALATE AND HARE-LIP.[1]

An excellent little monograph, written in the author's practical style. He advocates, after a thorough experience of the later operation for cleft-palate, one that is performed between the age of two weeks and three months, in this following the advice of Brophy of Chicago, and using the manœuvre of thrusting the maxillary arches towards the middle line. The pages teem with practical suggestions, and there are some very helpful illustrations. With regard to a hare-lip the author believes that this should be dealt with after the operation upon the cleft of the palate, and adduces weighty reasons in favour of this order of procedure. A perusal of the book cannot fail to be of interest and instruction to all engaged in this portion of plastic surgery.

BELL ON THE CANCER PROBLEM.[2]

We fear the problem of "cancer" is no nearer solution by the appearance of this little *brochure* so far as we can gather, for the diction is by no means clear. "Cancer" has the following etiology. The thyroid gland controls in some mysterious way the vitality of cells. Remove the action of its secretion, and certain cells run riot. A particular micro-organism, "sacchromysis" (*sic*), is said to be invariably present in the cancerous diathesis (whatever this may be), and it is believed to convert excess of nitrogenous impurity in the blood into uric acid. This produces a debilitating effect upon the thyroid, and so cancer appears. Treatment to be rational, therefore, should be salicylates, to destroy the above-mentioned organism, and thyrocol, to supply the want or supposed (for it is all supposition) want of thyroid secretion. Perseverance in this treatment over a somewhat lengthy period is urged. "Of course the process of recovery is slow, and may by some be considered tedious," and we can well imagine it. We had intended to read this booklet with an unbiassed mind, but the

[1] "Cleft-Palate and Hare-lip." By Edmund Owen, F.R.C.S., Consulting Surgeon to St. Mary's Hospital, &c. Medical Monograph Series, No. 10, pp. 111. Illustrations 39. London: Baillière, Tindall and Cox, 1904. Price 2/6 net.

[2] "The Cancer Problem in a Nutshell." By Robert Bell, M.D., F.F.P.S., &c. London: Baillière, Tindall and Cox, 1904. Net 1/-. Pp. 39.

following extract from the preface will show how difficult this would be. "The hope that it will prove to be the means of encouraging the general practitioner to treat his cases of cancer by therapeutic measures, and so protest against the employment of the knife, which never succeeds in giving permanent relief."

It would have been better if this book had not appeared.

DAWSON TURNER ON MEDICAL ELECTRICITY.[1]

THOSE who are enquiring for a thoroughly practical treatise on Medical Electro-Therapeutics, should not hesitate to read this volume, which brings up to date the great advance which has been made on this subject. Moreover, it is written in language simple and clear, so that the whole subject can be easily understood and mastered. The fact that a book of this class has reached its fourth edition leads one to hope that practitioners are becoming aware that it is both better and more lucrative to study and practice the art of electro-therapeutics, than to leave it to instrument makers, masseurs, nurses, and the large class of unqualified persons who thrive on it, and at the same time tend to bring the practice of electricity into disrepute.

Illustrations of all the latest and best apparatus are given, with a full description of their use; and the various means of utilising currents from the house mains, both direct and alternating, are well explained.

The chapters on electro-physiology, electro-diagnosis, electro-surgery and electro-therapeutics are excellent, and those on Röntgen-rays and radiation therapeutics, a trustworthy guide to those seeking knowledge on these subjects. We should like to have seen a fuller and more detailed description of the high frequency currents and their application.

MAYO ROBSON AND MOYNIHAN ON DISEASES OF THE STOMACH.[2]

THAT a book of five hundred pages should be published on diseases of the stomach alone shows how great has been the advance of knowledge in abdominal surgery. The names of the authors are sufficient guarantee that the pages are full of

[1] "A Manual of Practical Medical Electricity." By Dawson Turner, B.A., M.D., F.R.C.P.Ed. 4th Edition. London: Baillière, Tindall and Cox, 1904.

[2] "Diseases of the Stomach and their Surgical Treatment." By A. W. Mayo Robson, F.R.C.S., and B. G. A. Moynihan, M.S., F.R.C.S. Pp. xiv. and 508; Illustrations 108. London: Baillière, Tindall & Cox, 1904.

valuable material, for their operative experience has been considerable, and, as a result, every chapter bears the imprint of practical knowledge.

A full description of all the abnormal conditions is given, the diagnosis discussed, the operative treatment described in detail, the technique being illustrated by many clear diagrams, and reports given of actual cases. Many of the one hundred and eight illustrations are excellent, and these, combined with complete lists of recorded cases in certain obscure conditions and the references at the ends of the chapters, go to make the volume both complete and excellent in every way.

LEWIS JONES ON MEDICAL ELECTRICITY.[1]

As the author states in the preface, "The difficulties connected with the management of the apparatus and a certain want of general knowledge as to what can and what cannot be done by electrical treatment, still cause some to shut their eyes to the whole subject, or else to look at it with coldness. Others have condemned it because it will not work miracles."

Dr. Lewis Jones has been one of the pioneers of the movement to put electrical therapy on a scientific basis, so that a text-book from such a pen, giving the history of medical electricity, saying what is to be expected of it, with full and accurate description of the methods to be employed, gives to those interested a volume which, if studied, will help to bring about a more rational mental attitude towards the use of electricity in treatment of disease.

"When electrical treatment becomes familiar to medical practitioners, the abuses which have surrounded it will disappear."

GARRY SIMPSON ON ADENOID GROWTHS.[2]

THE contents of this book will be familiar to many of the members of this Society who were present when Mr. Simpson read his paper on this subject. He is to be congratulated upon its production, as it is a handy and practical guide to the subject, the result of experience gained as Clinical Assistant at the West London Hospital. Anyone requiring a guide to the care and treatment of patients suffering from this complaint cannot do better than study this little work.

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[1] "Medical Electricity: a Practical Handbook for Students and Practitioners." By H. K. Lewis Jones, M.A., M.D. London: H. K. Lewis, Gower Street.

[2] "Adenoid Growths of the Naso-Pharynx." By G. A. Garry Simpson, M.R.C.S.Eng. John Bale, Sons & Danielsson, Ltd., London, W.

MRS. LANGTON HEWER, "OUR BABY."[1]

THE popularity of this little work, as shown by the fact that it has reached its ninth edition, is well deserved, as it is admirably suited for the mothers and nurses for whom it is written. The amount of ignorance which exists, even among the well-educated classes, on the subject of the rearing of infants is astonishing, and the young mother is generally bewildered by the contrary opinions and advice she is given; but with the aid of this book, instead of being at the mercy of others, she will be enabled to do the right thing by her child, and to know that it is the right thing. The book is replete with good advice, and may be confidently recommended by every medical man to his patients.

SAWYER'S PRACTICAL MEDICINE.[2]

THE production of medical books continues without cessation, and many of them, we fear, do not pay even for perusal, but this volume is one which we can unhesitatingly recommend to every medical practitioner. It is just one of those practical guides to treatment, written by a man of great acumen and experience, which are so much wanted and are so rarely found.

One of the defects in the modern system of medical training is the absence of any real knowledge of the use of drugs and of general treatment at the end of the curriculum, and the young practitioner is launched on the world with a hospital pharmacopœia from which he compiles the prescriptions he writes, and with little or no idea of treating the ailments most frequently met with, and the usual text-books give him but scanty help. To such a man a work of this kind is invaluable. We cannot quote from it, as every chapter is worth reading and re-reading, for they contain not only general rules for the treatment of such complaints as insomnia, hæmorrhoids, chorea and floating kidney, &c., but are replete with "tips" as to the best way in which to give drugs in combination or otherwise.

LAKE'S DISEASES OF THE EAR.[3]

THE author has produced a thoroughly practical handbook on this subject for the use of students and practitioners. It is well illustrated, and without going into too much detail, should

[1] "Our Baby: for Mothers and Nurses." By Mrs. J. Langton Hewer. Ninth edition. Bristol: John Wright & Co., 1904.

[2] "Contributions to Practical Medicine." By James Sawyer. Fourth Edition. Birmingham: Cornish Bros., 1904.

[3] "Handbook of Diseases of the Ear." By Richard Lake, F.R.C.S.Eng. London: Baillière, Tindall and Cox, 1903.

prove a handy book of reference for the general practitioner. Clear and concise directions are given for the examination of the patients and for the use of the various instruments necessary. As a text-book we can cordially recommend this work, more especially as the author is more temperate in his views than many of his colleagues in this particular speciality.

STOPFORD TAYLOR'S CLINICAL RECORDS OF LIGHT AND X-RAY THERAPY.[1]

THIS book consists of a series of condensed records of cases treated by the Finsen method and by X-rays, accompanied by photographs of patients before and after treatment, which are excellently reproduced. It is to be welcomed as giving results attained by a practitioner of experience in this speciality, as at present the profession as a whole has little or no knowledge of the subject. Several cases of lupus vulgaris treated by both methods with excellent results are described, and the remainder of the volume is made up of a short series of cases of skin disease, treated successfully by means of X-rays. In common with others, the author cannot point to any permanent cure of malignant disease by X-rays, but is convinced of the value of this method in relieving pain and discharge, and prolonging life in cases beyond the power of other remedies.

LEFTWICH'S INDEX OF SYMPTOMS.[2]

THE fact that this little volume has reached its third edition proves that it has been found useful by a large number of all sections of the profession. It is undoubtedly a most useful work, and the author is to be congratulated on the very complete and accurate list of diseases which he has compiled, and which must have necessitated considerable labour and research. A very large amount of information is interspersed in these lists, and the book is one which should prove useful to every medical man as a handy book for reference and assistance in arriving at a diagnosis in difficult cases.

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[1] "Clinical Records of 'Light' and 'X-Ray' Therapy" (illustrated). By G. G. Stopford Taylor, M.D.Durham, M.R.C.S., L.R.C.P. London: John Bale, Sons and Danielsson, Ltd., 1904.

[2] "An Index of Symptoms as a Clue to Diagnosis." By Ralph Leftwich, M.D. Third Edition. London: Smith, Elder and Co., 15, Waterloo Place, 1904.

WYATT WINGRAVE ON ADENOIDS.[1]

THIS volume is one of the medical monograph series, the aim of which is to sketch in a brief compass the chief features of given subjects of general interest to medical practitioners. The author has taken the subject of adenoids, and said almost all there is to be said in a fair spirit, in which, while pointing out the ill effects of adenoids, he does not attribute every ill to which human flesh is heir to their baneful presence. The chapters on signs and symptoms, diagnosis and treatment, are carefully prepared and well suited for the class of readers for whom this book is written, as the author gives all the chief points without entering into too much detail. Those on after-treatment and the choice of an anæsthetic are among the most useful in the book. The teaching is sound, being the outcome of the author's large experience.

WALKER ON INFLAMMATION, INFECTION, AND FEVER.[2]

A FEW years ago Robert Gordon, Esq., of Brockham Park, made a deed of endowment for a Research Lectureship and Laboratory at Guy's Hospital. Dr. Ainley Walker, the author of this book, was the first Gordon Lecturer appointed, and the results of his work on the general pathology of inflammation, infection and fever, were embodied in a series of lectures, originally published in the *Clinical Journal* and now re-issued in book form. The subjects are discussed much more fully than in ordinary text-books, and the experimental side of the question brought into greater prominence. The book will be found most useful to all students of pathology, and is of such excellence as to be a strong vindication of the policy of endowment for research.

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[1] "Adenoids." By Wyatt Wingrave, M.D. Medical Monograph Series, No. 9. London: Baillière, Tindall & Cox, 1904.

[2] "The General Pathology of Inflammation, Infection and Fever," being the Gordon Lecture for 1902. By E. W. Ainley Walker, M.A., D.M. Oxon. London: H. K. Lewis, 136, Gower Street, W.C.

THE LIBRARY REPORT.

It is customary at the commencement of a new Session to review the result of the previous one. Twelve months ago the experiment was adopted of substantially increasing the subscription to Messrs. Lewis for loan volumes, making the annual amount up to £15 15s. In obtaining this sum a certain amount of anxiety was felt, as, in spite of the partial guarantee from the Post-Graduate College, other expenses had to be met. The result, however, has been very satisfactory, for not only has the above sum been raised, but the success of the new scheme amply proven. Three hundred and fifty loans have been recorded (an increase of 100 over the previous year) and the number of subscribers materially increased.

It may be noted that a large majority of the Members contributing to the Fund are connected with the West London Hospital or Post-Graduate College, and it is remarkable how few Members residing in the locality have availed themselves of the advantages of the Society's Library, unless it has been brought to their notice by observation *in loco*. At one time the Library was considered to be essentially one for reference, and few books were borrowed, but it has of late so altered in character, that its use is now far more for loan than for reference purposes. It may be taken as a fact that the popularity of a Medical Library depends on its ability to supply, at short notice, any up-to-date work, so that without such an arrangement as exists here at present, a large sum of money must be expended annually in new books, which, of course, are soon out of date.

It is a matter for regret that there has been some falling off in the number and quality of the books presented for review, and that publishers are so niggardly in supplying works for advertising purposes.

HERBERT W. CHAMBERS,
September, 1904. *Hon. Librarian.*

LIST OF SUBSCRIBERS TO LIBRARY (SUPPLEMENTARY LIST):—

Dr. Bagram.
,, Bryan.
,, Gray.
,, Harold.
,, James.
Mr. Mason.
,, Morgan.
,, Nolan.
,, Webb.
,, Woodforde.

Books Received.

Treatise on Medicine. By Dr. Seymour Taylor, 1904.

Report of the Royal Commission on Arsenical Poisoning, from the Local Government Board.

An Index of Symptoms as a Clue to Diagnosis. By Ralph Leftwich, M.D. Third Edition. London: Smith, Elder and Co., 1904.

Clinical Records of Light and X-ray Therapy (Illustrated). By G. G. Stopford Taylor, M.D., Durham, M.R.C.S. London: John Bale, Sons and Danielsson, Ltd., 1904.

A Handbook of Diseases of the Ear. By Richard Lake, F.R.C.S.E. London: Baillière, Tindall and Cox, 1903.

Contributions to Practical Medicine. By James S. Sawyer, M.D. Fourth Edition. Birmingham: Cornish Bros., 1904.

Our Baby. By Mrs. C. Langton Hewer. Ninth Edition. Bristol: John Wright and Co., 1904.

Medical Electricity. A Practical Handbook for Students and Practitioners. By H. Lewis Jones, M.A., M.D. London: H. K. Lewis, 1904.

Diseases of the Stomach and their Surgical Treatment. By A. W. Mayo Robson, F.R.C.S., and B. G. A. Moyniham, M.D., F.R.C.S. London: Baillière, Tindall and Cox.

A Manual of Practical Medical Electricity. By Dawson Turner, B.A., M.D., F.R.C.S.Ed. Fourth Edition. London: Baillière, Tindall and Cox, 1904.

The General Pathology of Inflammation, Infection and Fever. By E. W. Ainley Walker, M.A., M.D. London: H. K. Lewis, 1904.

Adenoid Growths of the Naso-Pharynx. By G. A. Garry Simpson, M.R.C.S. London: John Bale, Sons and Danielsson, 1904.

Cleft Palate and Hare-Lip. By Edmund Owen, F.R.C.S. Medical Monograph Series. London: Baillière, Tindall and Cox, 1904.

The Cancer Problem in a Nutshell. By Robert Bell, M.D., F.F.P.S. London: Baillière, Tindall and Cox, 1904.

Adenoids. By Wyatt Wingrave, M.D. Medical Monograph Series, No. 9. London: Baillière, Tindall and Cox, 1904.

THE POST-GRADUATE COLLEGE.

By the Dean.

The Vacation Course commenced on Monday, August 8, and was well attended. During the past three months 81 Post-graduates have been on our books, in addition to the Life Members, who now number 65. Amongst the former have been 10 officers of the Royal Naval Medical Service, 3 in the Royal Army Medical Corps, 1 in the Indian Medical Service, as well as 27 medical men from the colonies and abroad.

Special classes have been held in the following subjects: Throat and Ear Diseases (1), Ophthalmoscopy and Retinoscopy (2), X-rays (1), Anæsthetics (1), Intestinal Surgery (2), Clinical Examination of Blood and Urine (2), and Bacteriology (3), the last named class has proved a very popular one in the hands of the new pathologist, Dr. Candler.

The Annual Dinner of the Post-Graduate College was held on Saturday, June 25, at the Trocadero Restaurant, Dr. J. Barry Ball, physician to the Throat and Ear Department of the Hospital, occupied the chair, and the interest of the gathering was greatly enhanced by the presence of Professor von Mikulicz, who delivered the last Cavendish Lecture. Over 100 members and their friends were present, the attendance being a record one

The Chairman having given the customary loyal toasts, Dr. E. Arthur Saunders proposed "The Imperial Forces," Fleet-Surgeon Welch and Lieutenant-Colonel E. M. Wilson (an old House-Surgeon) responding. In giving "Success to the West London Hospital and the Post-graduate College," the Chairman pointed out that the hospital had grown in size under the pressure of the constantly increasing work with which it had to deal. But even now it was too small and ill-equipped to meet the demands of the large and populous neighbourhood it served. There was much to be desired in the out-patients' department, and they still remained without proper accommodation for the nurses. He was, however, glad to say that one serious defect had been remedied, for they now had an adequate laboratory in charge of a skilled pathologist. As to the Post-graduate College, there was nothing to report but progress, and no one could deny the benefit that medical men derived from these Post-graduate studies. During the year 1903 they had received 234 new entries to the College, against 135 in the preceding year. These included a large number of Naval men on study leave, and some men of the Army Medical Corps and the Indian

Medical Service, and a good many practitioners working in and around London. For their special classes they had received 335 entries during the past year. Although the College had many defects and shortcomings, it met the demands of the men who came to it, and was steadily increasing in popularity and usefulness. Mr. Bidwell and Dr. Nolan responded. The toast of "The Visitors," proposed by Mr. Keetley, was acknowledged by Professor von Mikulicz. Other toasts followed.

The Winter Session will commence on Thursday, October 13, when the address will be delivered by the Rt. Rev. The Lord Bishop of Oxford, at 5 p.m. The Bishop, who is a son of the late Sir James Paget, will receive a hearty welcome on his own account and for the sake of his father. Tea and coffee will be served at 4.30 p.m. Members of the Society are cordially invited to attend.

The following is a list of Post-graduates who have attended the practice of the West London Hospital during the last three months. An asterisk is placed against the names of those who are Life Members of the Post-graduate College.

*L. H. Armstrong (Ripon).
W. Blair Aitken (Jamestown, S. Australia).
Surgeon Hilary Arathoon, R.N.
*D. Arthur, M.D. (Shepherd's Bush).
Thos. Archer (late R.A.M.C.).
G. Arthur (West Ealing).
*A. Baldock (Earl's Court).
W. H. Bailey (Southall).
S. M. Banham (West Acton).
*W. E. Barton (Streatham).
*G. J. Bagram (Bayswater).
A. Geo. Beale (Kensal Rise).
S. H. Belfrage (Montague Square).
*Dep. Ins.-Gen. R. Bentham, R.N.
R. M. Boodle (Sittingbourne).
Fleet-Surgeon R. F. Bowie, R.N.
C. W. Browne (Taung, S. Africa).
*R. D. Brinton (S. Kensington).
F. C. Bryan (Bayswater).
*H. F. Browne (Langham Street).
*W. M. Burgess (Harlesden).
*M. G. Cadell (Bayswater).
*Capt. Carmody, R.A.M.C. (ret.).
*Major E. R. W. Carroll, I.M.S.
P. T. Carpenter (Leinster Square).
*H. W. Chambers, Hon. Life Member (Shepherd's Bush).
F. W. Clark, M.D., D.P.H. (Hong Kong).
*Lt.-Col. Clutterbuck (Newcastle).
W. P. Cockle (Ealing).
Surgeon W. J. Codrington, R.N.
A. R. Coldstream (Nayland).
*J. E. Coulson (Fulham).
H. Evelyn Crook (Earl's Court).
J. S. Curgenven (Bayswater).
G. G. Davidson (West Kensington)
Samuel Davidson (Helmsdale).
Frank Dendle (Isleworth).
John Day (Dublin).
*L. Dobson (Kensington).
Staff-Surgeon F. C. Durston, R.N.
C. W. Emlyn (Bayswater).
Staff-Surgeon C. S. Facey, R.N.
Major Norman Faichnie, R.A.M.C.
*A. St. Aubyn Farrer (Paddington).
W. R. Fenton (B.S.A. Police, Rhodesia).
*W. H. Fitzmaurice (Dunmanway).
P. J. Flanagan (Cashelgarren).
W. S. Frith (Berkhampstead).
Francis C. S. Forbes (New Zealand).
*Fleet-Surgeon A. M. French, R.N.
W. E. Fry (Hammersmith).
A. T. Frost (Newmarket-on-Fergus).
F. Gans (Bohemia).
*D. Gault (New Zealand).
*H. M. Gay (Southampton).
G. F. Gill (St. Bart's.).
Edmund Gonin (Burstow).
*A. J. Grant (West Kensington).
Staff-Surgeon Gordon Green, R.N.

*W. Grantham-Hill (Chiswick).
J. H. Greensill (Worcester).
*C. H. Haines (Kensington).
*C. S. Hancock (Leytonstone).
*W. Allen Harmer (Tonbridge).
Capt. W. S. Harrison R.A.M.C.
*N. Heard (Chiswick).
S. Rocliffe Haworth (C. Colony).
J. W. Henson (Richmond, Virginia).
F. J. Ingoldby (W. Australia).
*W. C. James (Kensington).
E. W. Hedley (London, S.W.).
*Capt. Johnston, R.A.M.C. (ret.).
*R. A. Kirby (Westminster).
*W. B. Kirkaldy (Kensington).
Alex. Krakowsky (Paarl, C. Colony).
Capt. O. Langston, I.M.S.
W. S. Laurie (Melbourne).
*T. M. Legge (Temple).
*T. Ligertwood (Chelsea).
C. A. Lees (West Ealing).
W. Lyle (Newtonstewart).
*J. Lynes (Kensington).
*A. Barclay Lyon (Hammersmith).
Norman Macdonald (Harlesden).
*G. Maguire (Richmond).
Angus Martin (N. Shields).
H. J. W. Martin (Mill Hill).
*W. Hooper Masters (Barnes).
*E. D. Macdougall (Walton-on-Thames).
*J. B. Mackay (Isle of Wight).
Surgeon G. E. Macleod, R.N.
John F. C. Mackenzie (Melbourne).
G. McCoull (London).
E. J. C. McDonald (Surbiton).
D. McLean (Melbourne).
*H. J. McNickle (Vauxhall).
*D. F. Maunsell (S. Kensington).
P. W. Mason (Wymondham).
Percy Mathews (W. Coast Africa).
A. R. Milton (Colombo, Ceylon).
M. Mitra (Calcutta).
R. M. Moffat (Uganda).
*B. W. Mudd (St. Pancras).
Z. Mennell (Kensington).
F. C. Neale (Toronto).
W. Nolan (Kensington).
*W. Norbury (London).
*W. R. Oliver (New South Wales).
Harry Overy (Paddock Wood).
*H. M. Page (Kensington).
H. Compton Parsons (W. Hampstead).
W. Harland Peake (Hampstead).
*A. F. Penny (Chelsea).
*R. D. Pollock (Acton).
*A. Renny (Southampton).
*A. H. Rideal (Twickenham).
E. A. Purcell (Wimbledon).
*Patrick Robertson (Canada).
*A. Tait Robinson (Hyde Park).
*Neil Robson (Bayswater).
*F. E. Rock (Hammersmith).
*T. Mackay Ross (Fulham).
*Fleet-Surgeon J. M. Rogers, R.N.
*Lt.-Col. Silcock, I.M.S.
W. P. Speed (Coolgardie).
*G. A. Garry Simpson (Acton).
*A. Ross Sinclair (Parson's Green).
*W. Slater (Epping).
*H. H. Sturge (Maida Vale).
*E. Swain (Hampton Hill).
Nicholas Tabone (Cozo, Malta).
F. C. Tothill (Staines).
Surgeon H. P. Turnbull, R.N.
Alex. Urquhart (Shepperton).
Fleet-Surgeon S. W. Vasey, R.N.
Surgeon A. H. H. Vizard, R.N.
J. Waldispuhl (Rothenburg).
*L. A. Walker (Notting Hill).
W. W. Walker (Kensal Rise).
T. B. Walley (Adelaide).
*H. W. Walter (Brentford).
G. E. Welch (Palatka, Florida).
C. V. Wells (Adelaide).
*J. Williamson (Putney).
J. A. Wilson (Springburn).
*A. P. Woodeford (Shepherd's Bush).

L. A. BIDWELL, *Dean.*

September 20, 1904.

NOTES ON NEW PREPARATIONS.

The Ferroleum Company, Ltd.—This company has forwarded to us samples of ferroleum for trial and examination.

Ferroleum is a combination of phosphate of iron, phosphorus, and cod-liver oil, and has the following composition:—

Phosphate of iron	1·43 per cent.
Free phosphorus	a trace.
Cod-liver oil	40 per cent.
Glycerine	10·76 per cent.
Moisture	47·81 „ „

It will be seen from this analysis that ferroleum contains a considerable proportion of phosphate. The oil is in the form of a very fine and stable emulsion, and the preparation is of good appearance, whilst the taste of the oil is well masked. We have given the preparation a fair trial, and are pleased to be able to state that it was well taken by the patients, and very well tolerated by them, there being no unpleasant regurgitations or "reminders."

Used chiefly by us in tuberculous disease, the anæmia so commonly present was certainly improved, and during its use an increase of body weight was noted.

In our opinion the preparation is a valuable one, and certain to take a high place amongst kindred remedies.

Messrs. Burroughs, Wellcome & Co.—Amongst the new preparations recently issued by this firm we note two new preparations in the form of the well-known "Enules":—

1. "Enule" Quassin (amorphous) gr. $\frac{1}{8}$. This has been successfully used as an anthelmintic for the ascaris lumbricoides. One "Enule" is administered each night for twelve or fourteen successive nights.

2. "Enule" Soap Compound. A simple and efficacious laxative for the relief of constipation. Each "Enule" contains curd soap, gr. vii., and dried sulphate of sodium, gr. vii.

It is perhaps hardly necessary to add that the "Enule" products are wrapped in tin-foil, thus resisting atmospheric changes, and keeping the suppository free from contaminations. The drugs are evenly diffused throughout the suppository, and are of exact dosage.

Amongst new "Tabloids" we note "Tabloid" calomel and opium. Each contains: calomel, 1 grain; powdered opium, $\frac{1}{2}$ grain. Each product is prepared in a condition to disintegrate very shortly after administration. Calomel pills tend to become hard with age, and the property of rapid distintegration belonging to these "tabloids" is therefore valuable.

NOTES ON SANATORIA, HOTELS, AND HEALTH RESORTS.

The Great Central Hotel, London.

Adjoining the Marylebone Station, the terminus of the Great Central Railway, the Great Central Hotel is thus situated midway between the Marble Arch and Regent's Park. Standing in a large open space, free from the pressure and crowding of adjacent tall buildings, the first impression of the visitor is one of airiness and lightness, an impression fully borne out upon entering the hotel. Indeed, cleanliness and brightness are the dominating features of this modern addition to our London caravanserais.

Situated within a shilling cab-fare of Piccadilly, it is in close proximity to the Baker Street Stations of the Metropolitan, District, and Baker Street and Waterloo Railways, the latter fast approaching completion, and thus connection with all parts of the metropolis is at its doors. But the special interest of the hotel for readers of this Journal lies in its neighbourhood to the "doctors' quarter"—a short ten minutes' walk bringing us to the Cavendish Square district.

We can speak from the experience of patients staying in the hotel of the courtesy and attention to their comfort on the part of the management, whilst the fresh air and quiet obtainable are assets of very real value to invalids. Many patients, not sufficiently ill to require the hospitality of the numerous nursing homes of the district, have availed themselves of the proximity of the hotel to the great medical quarter of London.

The tariff bears favourable comparison with that of any other first-class hotel, and we can guarantee from personal experience that excellent value is given for the money. It should be noted that special terms can be arranged *en pension* between the months of August and March for prolonged stays, at very reasonable rates.

The hotel is built in the form of a square, surrounding a large central court or winter garden. All round this court runs the lounge, a most attractive resort to visitors, where an excellent orchestra plays every afternoon and evening. The public rooms are on the scale of luxury which the Fredericks Hotel Company have led the public to associate with all their establishments, whilst the furniture is as great a departure from the old style of mid-Victorian dreariness as can well be imagined, many of the suites being copied from famous examples of the art of Chippendale Sheraton, and their contemporaries.

Combining the natural advantages of site with the most modern resources of the furnishers' and decorators' art, the Hotel Great Central is an excellent example of what a present-day hotel should be.

NOTES AND NEWS.

As will be seen by a perusal of the Annual Report, our Society is in a healthy and vigorous state, both as regards its numbers and the work transacted at its meetings. Although it has now been established for more than twenty-one years, its growth is continuous, and there are no signs of premature decay. This is in a measure due to the establishment of the Post-Graduate College at the West London Hospital, from the members of which a fair number of our new members are drawn. It is a good thing for the Society in more ways than one, for many of these gentlemen on returning to their homes keep up an active interest in its Transactions and the Journal. We are now about to commence a fresh Session, under our new President, Mr. C. M. Tuke. He is one of the original members of the Society and has always taken an active interest in its proceedings, and there can be no doubt but that under his guidance the forthcoming Session will be as prosperous as any in the past.

From the report of the Hon. Librarian we learn that the same progress is taking place in the Library. But we feel sure that its advantages are not fully understood by many of the members, for if it were so, greater use would be made of them. For a modest subscription of 2s. 6d. a member can obtain any book he may require from Messrs. Lewis' list for a fortnight; for double that sum he can have the use of any two volumes and change them as often as he pleases, or keep them for one month; this is of course in addition to the use of the large number of books on the library's shelves, which are being constantly added to by fresh purchases and donations.

In the last number of the Journal is recorded a case of "Creeping Linear Dermatitis," shown by Dr. Abraham at one of the Clinical Evenings, and an illustration of the case is appended. It was Dr. Abraham's intention to give the results of a microscopic examination of a piece of the skin through which the creeping line ran, but it arrived too late for publication. Dr. Candler, the pathologist to the Hospital, however, reported that after making careful investigation on the possibility of finding (*a*) the presence of a micro-organism within the vesicle, (*b*) the presence of a parasite, or (*c*) changes in the tissue itself, no condition of interest could be discovered beyond some slight inflammatory change in the

superficial layers of the corium and around the capillary vessels in the neighbourhood.

THE discussion on Immunity, which took place at the Oxford Meeting of the British Medical Association, proved most interesting and valuable. It served to show how much attention is being given to the question, and yet, owing to its exceeding complexity, how far we still are from having any definite idea as to the manner in which immunity is conferred.

When serum-therapy was first introduced it was thought by many that something approaching a revolution in treatment had been brought about, and the explanations then given and considered sufficient certainly had the merit of simplicity. But the deeper the investigation into the matter proceeded the more complex it became, until there now seems to be a danger of the main question being lost sight of by reason of the many side issues raised. Pathologists and chemists engaged in the study find difficulty in harmonising their results. A Commission appointed in England on the question of tubercle, came to certain conclusions, and, just when it was thought that these might be taken as a working basis, we learn that a similar Commission in Germany has arrived at just the reverse conclusions.

All this goes to show that, if any hope is to be entertained of unravelling these mysteries in the near future, and thus putting serum-therapy on a scientific basis, endowments must be forthcoming such as will allow pathologists the opportunity of devoting their whole time and energy to the investigation of this important branch of medicine.

IN another of the sections of the Annual Meeting of the British Medical Association, held at Oxford, Dr. S. Hamilton read a paper entitled "Is the widespread slight training in Ambulance Work beneficial to the Community?" and he proceeded to show how in his experience much of the first aid rendered by holders of these certificates is feeble, imperfect, and of little practical value. This is the experience, we think, of most of us. Dr. Hamilton considers this inefficiency due to defects in training, much of the knowledge being simply crammed up for examination purposes, indulgence on the part of examiners who do not care to pluck candidates who have answered a fair number of questions, and finally, want of practice. This criticism, of course, does not apply to those who become members of the St. John's Ambulance Brigade, or who join classes such as are held on some of the Railways, which habitually compete for prizes. He urges as a remedy a much more thorough and practical examination; organisa-

tion of corps of the St. John's Ambulance Brigade in towns where none already exist, which would bring the certificate holders together for practice, and organisation by factory owners and employers of labour of the certificate holders amongst their employés, so that they could meet for practice. We are in accord with these suggestions, which, on the one hand, if carried out, would probably diminish the number of ambulance men, yet, on the other, one would feel more confidence in the ability of those called in to render first aid.

THE installation of the W. M. Elect (Bro. T. Seymour Tuke) of the Cavendish Lodge will take place on Wednesday, October 5, at the Imperial Restaurant, Regent Street, at 6 p.m.

THE Editor would feel obliged if in future all contributions to the Journal are forwarded to 71, Holland Park Avenue, W.

REPORT FOR THE SESSION 1903-4.

Presented by the Council at the Twenty-Second Annual Meeting, July 8, 1904.

YOUR Council, in presenting its Report for the Twenty-Second Session, has much pleasure in congratulating the Members upon the continued growth and prosperity of the Society.

Since the last Report 26 Members have resigned. Four Members have died: namely, Dr. N. B. Elliot, Dr. Chorley Hall, Sir William Kynsey and Dr. H. Pillow. Six have been removed under Law 28 for non-payment of Subscription. Forty-four new Subscribing Members have been elected. Thus there is an increase of 8 in the Members of the Society, the total membership amounting to 619.

The financial position of our Society continues most satisfactory under the able management of the Treasurer, who again reports a substantial balance.

The Journal is now under the Editorship of Dr. Leonard Dobson, with whom Mr. J. G. Pardoe is associated as Editorial Secretary. Its circulation is greater than before; and, with a view to further increase, the price of the Journal has been reduced.

The Library has increased in size and usefulness under the care of Mr. H. W. Chambers. Forty-four new books have been added, and a large number of works have been borrowed during the past year.

The Annual Dinner was held in the Empire Rooms, Trocadero Restaurant, on Wednesday, May 4, 1904. The attendance was slightly below the average, probably owing to the date being in the summer months. The testimonials subscribed for by Members of the Society to Mr. Dunn and

Mr. McAdam Eccles, on their retirement from the posts of Editor and Editorial Secretary, were presented at the dinner.

The Cavendish Lecture was delivered on Friday, June 24, at the Town Hall, Hammersmith, by Professor von Mikulicz, M.D., LL.D., of Breslau. The title of the Lecture was "Experiments on the Immunisation of Operation Wounds." The President and Council afterwards entertained the Members and their friends at a Conversazione.

The thanks of the Society are due to the Lady Superintendent and the Secretary Superintendent of the West London Hospital for their courtesy and assistance to the officers of the Society.

The following Papers and Cases have been brought before the Society at its Meetings during the past Session.

PAPERS.

(1) PRESIDENTIAL ADDRESS.—Milestones in Medicine.

(2) Mr. L. A. BIDWELL.—Operative Treatment in Pancreatitis.

(3) Mr. J. JACKSON CLARKE.—The Objects and Limits of the Surgical Treatment of Paralytic Deformities.

(4) Mr. W. MCADAM ECCLES. — Lessons from a Year's Fatalities.

(5) Mr. F. G. LLOYD.—Appendicitis.

(6) Dr. ALEX. MORISON.—Boldness in the Treatment of Heart Disease.

(7) Mr. STEPHEN PAGET.—The Use of Paraffin Injections in Surgery.

(8) Mr. G. A. GARRY SIMPSON.—Adenoid Growths, when and how to Operate.

(9) Dr. S. WEST.—Albuminuria in the Apparently Healthy.

THE CAVENDISH LECTURE.

SUBJECT.—Experiments on the Immunisation of Operation Wounds. By Dr. von Mikulicz, LL.D., Professor of Surgery, Breslau.

CASES.

(1) Dr. P. ABRAHAM.—A Case of Molluscum Contagiosum.
A Case of Creeping Dermatitis.

(2) Dr. J. B. BALL.—A Case of Melanotic Sarcoma of the Palate.
A Case of Operation for Cyst of the Maxillary Antrum.

(3) Dr. L. DOBSON.—A Case of Lympho-sarcoma under treatment by the X-rays.

(4) Mr. W. MCADAM ECCLES.—A Case of Sarcoma of the Os Pubis.

(5) Mr. C. B. KEETLEY and Mr. HAMILTON.—A Case of two Distinct Angular Curvatures of the Spine.

(6) Dr. E. FURNISS POTTER.—A Case of Radical Mastoid Operation.

(7) Dr. ARTHUR SAUNDERS.—A Case of Rickets with great Enlargement of the Spleen.

(8) Mr. G. A. GARRY SIMPSON.—A Case of Chloasma.
A Case of Thrombosis of the Internal Saphena Vein, treated by Trendelenberg's Operation.

(9) Dr. SEYMOUR TAYLOR.—Two Cases of Anorexia Nervosa.
A Case of Multiple Nodules in the Skin, probably Sarcomatous.

(10) Dr. HERBERT TILLEY.—A Case of Chronic Suppuration of all the Nasal Accessory Sinuses cured by Operation.
A Case of Operation for Complete Adhesion of the Soft Palate.

Signed on behalf of the Council,

SEYMOUR TAYLOR, *President.*

CHARLES BUTTAR,
ANDREW ELLIOT, } *Hon. Secretaries.*

DR. **FINANCIAL STATEMENT FOR THE YEAR ENDING MAY 31, 1904.** CR.

RECEIPTS.	£ s. d.	£ s. d.
To Balance in hand from last Account		105 16 1
,, Subscriptions, including arrears received	139 5 0	
,, Subscriptions paid in advance	6 0 0	
,, Balance from Dinner Fund and for Stamps	1 0 0	
		146 5 0
,, Subscriptions in arrear, May 31, 1904	47 10 0	
,, Subscriptions in arrear previous to May 31, 1903	37 15 0	
		85 5 0
		£337 6 1

EXPENDITURE.	£ s. d.	£ s. d.
By Grant to WEST LONDON MEDICAL JOURNAL		25 0 0
,, Salary, Library Assistant		7 10 0
,, Printing and Stationery :—		
Messrs. Churchman	24 11 11	
Editorial Secretary, Annual Report, &c.	11 8 0	
		35 19 11
,, Postage, Telegrams, &c. :—		
Dr. Saunders, Session 1902-03	1 9 10	
Dr. Buttar ,, 1903-04	3 1 3	
Dr. Elliot ,, ,, ...	0 5 0	
Treasurer ,, ,, ...	4 10 3	
Messrs. Churchman ,, ...	15 0 0	
		24 6 4
,, Refreshments—Schornsheim		5 17 6
,, Servants' Wages		1 10 0
,, Hire of Town Hall for Cavendish Lecture, 1903	4 16 0	
,, Deposit on Hire ,, ,, 1904	1 4 0	
		6 0 0
,, Post-graduate College, for use of Rooms		20 0 0
,, The Misses Erwin, for Typewriting Reports		1 4 0
		127 7 9
,, Balance at Bank, May 31, 1904 .. .. £136 2 2		
Less unpresented Cheques 13 14 0		
	122 8 2	
,, Cash in hands of Treasurer	2 5 2	
		124 13 4
,, Arrears of Subscriptions		85 5 0
		£337 6 1

Audited and found correct,

(Signed) W. E. C. MUSSON.
F. E. ROCK.

June 10, 1904.

OFFICERS AND COUNCIL.

SESSION 1904-1905.

President.

MR. C. M. TUKE.*

Vice-Presidents.

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DR. S. D. CLIPPINGDALE.
DR. J. B. BALL.
DR. F. F. SCHACHT.
SIR ALFRED COOPER.
MR. RICKARD W. LLOYD.
DR. SEYMOUR TAYLOR.

MR. C. B. KEETLEY.
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DR. G. H. D. ROBINSON.
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DR. A. MORISON.*
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MR. T. GUNTON ALDERTON.

Secretaries.

DR. ANDREW ELLIOT. | DR. W. H. WALTER.*

Librarian.

MR. H. W. CHAMBERS.

Editor of Journal.

DR. LEONARD DOBSON.

Editorial Secretary.

MR. J. G. PARDOE.

* Did not hold similar office last year.

PAST PRESIDENTS OF THE SOCIETY.

1882-83. E. HART VINEN, M.D.
1883-84. J. W. L. THUDICHUM, M.D.
1884-85. F. LAWRANCE.
1885-86. W. B. HEMMING.
1886-87. F. H. ALDERSON, M.D.
1887-88. C. B. KEETLEY.
1888-89. W. TRAVERS, M.D.
1889-90. H. CAMPBELL POPE, M.D.
1890-91. T. GUNTON ALDERTON.
1891-92. C. WELLS, M.D.
1892-93. F. SWINFORD EDWARDS.
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1894-95. R. J. BANNING, M.D.
1895-96. A. SYMONS ECCLES, M.D.
1896-97. W. BRUCE CLARKE.
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1899-1900. J. B. BALL, M.D.
1900-1901. F. F. SCHACHT, M.D.
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1902-1903. RICKARD W. LLOYD.
1903-1904. SEYMOUR TAYLOR, M.D.

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1884. TIMOTHY HOLMES.
1885. J. S. BRISTOWE, M.D., F.R.S.
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1896. THOMAS BRYANT.
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1904. VON MIKULICZ-RADECKI, M.D., LL.D.

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(Corrected to September, 1904.)

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JONATHAN HUTCHINSON, D.Sc., LL.D., F.R.S., 15, Cavendish Square, W.
His Excellency JOHN DUNCAN, M.D. (of St. Petersburg).
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Prof. WILLIAM OSLER, M.D., D.Sc., LL.D., F.R.S., Oxford.
Sir R. DOUGLAS POWELL, Bart., K.C.V.O., M.D., 62, Wimpole Street, W.
Sir T. LAUDER BRUNTON, M.D., F.R.S., 10, Stratford Place, W.
Sir FREDERICK TREVES, Bart., C.B., K.C.V.O., 6, Wimpole Street, W.

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F. H. ALDERSON, M.D.
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T. GUNTON ALDERTON.
F. S. EDWARDS.
DONALD W. C. HOOD, C.V.O., M.D.
W. BRUCE CLARKE.
H. P. POTTER, M.D.

Members, September, 1904.

*** The Secretaries request that they may be informed immediately of any inaccuracy in the list, or of any change of address.

The abbreviations P., T., V.P., S., C., E.P., A., L., A.L., E.J., and E.S.J., *are attached to the names of those who have respectively held the offices of President, Treasurer, Vice-President, Secretary, Member of Council, Editor of Proceedings, Auditor, Librarian, Assistant Librarian, Editor of the* JOURNAL, *or Editorial Secretary of the* JOURNAL. *The date before each name signifies the date of election, and the letters* O.M. *signify original member.*

1897	Abel, Horace M. ..	10, King's Bench Walk, Inner Temple, E.C.
1904	Abernethy, J., M.B. ..	Springwell, 3, The Terrace, Barnes.
1901	Abraham, J., M.B. ..	Coleraine, County Derry, Ireland.
1886	Abraham, P., M.D. (V.P., S., C., E.P.) ..	2, Henrietta Street, Cavendish Square, W.
1896	Achard, A. L., M.D. ..	9, Blandford Street, W.
1896	Ackland, R. C. ..	54, Brook Street, W.
1892	Addinsell, A. W., M.B. ..	7, Upper Brook Street, W.
1890	Alderson, F. H., M.B. ..	21, Queen's Gate Terrace, S.W.
O.M.	Alderson, F. H., M.D. (P., V.P., C.) ..	Glenthorne, Princess Road, W. Bournemouth.
1902	Alderson, P. F., Surg.R.N.	H.M.S. Flora, Pacific Station.

O.M.	Alderton, T. Gunton .. (P., T., V.P., S., C.)	82, The Grove, Hammersmith, W.
1902	Allan, C. H.	64, Westbourne Park Road, W.
1897	Allan, James, M.B. ..	Aldborough, Chislehurst, Kent.
1898	Allen, L. Lloyd ..	Crediton, Devon.
1897	Allingham, Walter ..	Whiteparish, near Salisbury, Wilts.
1884	Anderson, W. M., M.B...	Norville, Alleyn Park, W. Dulwich, S.E.
1903	Andrews, A. G., Fleet-Surgeon R.N.	Royal Naval Hospital, Great Yarmouth.
1885	Andrews, Charles .. (V.P., C., A.)	8, Auriol Road, West Kensington, W.
1899	Ansaldi, G., M.D. ..	San Remo, Italy.
1884	Appleton, T. A. ..	46, Britannia Road, Fulham, S.W.
1904	Argles, Ernest E. ..	St. Marylebone Infirmary, Rackham Street, Ladbroke Grove, W.
1902	Armour, D. J., M.B. ..	89, Harley Street, W.
1897	Armstead, H. W., M.D.	30, Queensborough Terrace, W.
1898	Armstrong, J. T. ..	109, North End Road, W. Kensington, W.
1897	Arthur, David, M.D. ..	55, Uxbridge Road, W.
1904	Arthur, George, M.B. ..	30, The Avenue, Ealing, W.
1903	Atkins, J., M.B. ..	59, Addison Gardens, Kensington, W.
1885	Atkinson, T. R. (C.) ..	1, West Cromwell Road, S.W.
1902	Attlee, J., M.D. ..	58, Brook Street, W.
1893	Austen, Harold, M.D. ..	129, Harley Street.
1885	Ayling, Arthur H. W...	155, Kennington Park Road, S.E.
1901	Bagram, George J., M.B.	1, Pembridge Gardens, W.
1904	Bailey, W. H., M.B. ..	Featherstone Hall, Southall.
1896	Baker, C. E., M.B. ..	5, Gledhow Gardens, S. Kensington, S.W.
1891	Baker, W. H.	65, Eaton Rise, Ealing, W.
O.M.	Baldock, A., M.B. (C.)..	180, Earl's Court Road, S.W.
1900	Baldwin, A. ..	6, Manchester Square, W.
1885	Ball, James B., M.D. .. (P., V.P., C., A.)	12, Upper Wimpole Street, W.
1904	Banham, S. M., M.B. ..	Ellesmere, Uxbridge Road, West Acton, W.
1898	Banting, Cecil, M.D. ..	Beeleigh, West Hill, Putney, S.W.
O.M.	Barnes, E. C. (V.P., C., A.)	194, Hammersmith Road, W.
1901	Barnes, G.	4, Wolverton Gardens, Hammersmith, W
1903	Barnes, H. E., M.B. ..	194, Hammersmith Road, W.
1892	Barrett, A. K.	2, Peel Place, Silver Street, W.
1899	Barrett, F. W.	7, Cavendish Place, W.
1898	Barrett, W. P. (V.P.) ..	Millfield House, 35, Cheriton Gardens, Folkestone.
1887	Bartlett, Edward (C.)..	38, Connaught Square, W.
1899	Barton, Charles N. ..	17, Redcliffe Gardens, S.W.
O.M.	Barton, J. K.	14, Ashburn Place, Courtfield Road, S.W.
1889	Bateman, A. G., M.B. ..	7, Queen Anne Street, W.
1897	Bathurst, L. Wood, M.D.	35, Colville Terrace, W.
1896	Batten, F. E., M.D. ..	33, Harley Street, W.
1888	Batten, Rayner D., M.D. (C.)	Campden Lodge, Campden Hill Road, W.
1883	Battle, W. H.	49, Harley Street, W.
1902	Bayly, H. W.	79, Elm Park Mansions, S.W.
1898	Beddard, A. P., M.D. ..	44, Seymour Street, W.
1902	Beedham, H. W., M.B.	124, Mill Lane, West Hampstead, N.W.

1902	Belfrage, S. H., M.D. ..	1, Montagu Place, Portman Square, W.
1901	Bell, H. J.	63, Sheen Lane, East Sheen, S.W.
1903	Bell, R. H., M.B. ..	27, Seymour Street, Portman Square, W.
O.M.	Benham, R. F... ..	11, Earl's Court Square, S.W.
O.M.	Bennett, C. H., M.D. (A.)	College House, Hammersmith, W.
1901	Bentham, R., Dep.Insp.-Gen. R.N.	Royal Naval Hospital, Plymouth.
1903	Bevan, A., M.D. ..	17, Kensington Gardens Terrace, W.
1899	Bevan, Richard ..	31, Girdler's Road, W. Kensington, W.
1891	Bidwell, L. A. .. .. (V.P., S., C., E.P., E.S.J.)	15, Upper Wimpole Street, W.
1902	Birt, J.	29, Belgrave Road, S.W.
1896	Bishop, T. H., M.D. ..	4, South Parade, Bedford Park, W.
1902	Blaber, Percy L. ..	Sunnybank, Shoot-up Hill, Hampstead, N.W.
1903	Black, A. C.	Linden House, Wateringbury, Kent.
1902	Blaikie, J. Brunton, M.B.	80, Brook Street, W.
1898	Blair, C. S., M.D. ..	Matson Lodge, Sheen Road, Richmond.
1903	Blake, J. Ff.	1, Werter Road, Putney, S.W.
1885	Blenkinsop, W. H., M.B. (C.)	7, Powis Gardens, Bayswater, W.
1893	Bonney, W. Augustus, M.D.	100, Elm Park Gardens, S.W.
1901	Bonney, W. F. Victor, M.D.	10, Devonshire Street, W.
1889	Bontor, S. A., M.D. (V.P.)	Great Berkhamsted, Herts.
1903	Bott, Percival G.A., M.B.	17, Southwick Street, W.
O.M.	Bott, W. H.	High Street, Brentford.
1889	Bourke, Wm. H., M.D.	8, Moreton Gardens, S.W.
1893	Bourns, N. Whitelaw, M.D.	78, Redcliffe Gardens, South Kensington, S.W.
1899	Box, Stanley, M.D. ..	47, Gordon Road, Ealing.
1888	Boyton, E. T. A. ..	46, Sebert Road, Forest Gate, E.
1888	Braga, J. F.	138, Croydon Road, Anerley, S.E.
1899	Braine, C. Carter ..	26, Wimpole Street, W.
1902	Bray, Ernest J., M.B. ..	
1900	Brewer, Dunstan ..	Eastern Fever Hospital, Homerton, N.E.
1898	Bridges, E. C., M.D. ..	2, Courtfield Road, S.W.
1901	Briggs, G. F.	Livingstone House, 136, Spring Bank, Hull.
1893	Brinton, R. D., M.D. ..	8, Queen's Gate Terrace, S.W.
1896	Bromet, E., (V.P.) ..	Heather Lodge, Redhill.
1903	Brookhouse, C. T., M.D.	19, Wickham Road, Brockley, S.E.
1903	Brown, E. H., M.D., Major I.M.S.	The Hermitage, Alipore, Calcutta, Bengal.
1896	Browne, E. S.	5, Cavendish Mansions, Langham Street, W.
1902	Browne, H. F., M.B. ..	308, Lillie Road, Fulham, S.W.
1903	Bruce, R. C., M.D. ..	10, Courtfield Road, S.W.
1890	Bruce, Robt. Marston..	Western Fever Hospital, Fulham, S.W.
1898	Brunton, W. R., M.B. ..	69, East India Road, Poplar, E.
1898	Bryan, F. Charles, M.D.	17, Kensington Gardens Square, W.
1900	Buchanan, G. S., M.D...	9, Hammersmith Terrace, W.
1894	Bucknill, C. R. ..	1, Cornwall Road, Twickenham.
1900	Burgess, W. M. ..	43, Nicoll Road, Harlesden, N.W.
1904	Burrows, W. H. ..	Eagle House, Avenue Road, Acton, W.
1903	Butler, H. O., M.B. ..	26, Grove Park Gardens, Chiswick, W.
1897	Buttar, C., M.D. (S., C.)	10, Kensington Gardens Square, W.
O.M.	Buxton, A. St. C. ..	44, Devonshire Street, W.

1898	Caley, H. A., M.D. ..	24, Upper Berkeley Street, W.
1896	Campbell, H., M.D. ..	23, Wimpole Street, W.
1892	Carre-Smith, H. L. ..	74, Holland Park Avenue, W.
1903	Carter, W. R., M.B. ..	155, Uxbridge Road, W.
1896	Cathcart, G. C., M.B. ..	35, Harley Street, W.
1896	Chaldecott, J. H. ..	41, Welbeck Street, W.
1903	Challis, O., Capt. R.A.M.C.	c/o Messrs. Holt and Co., 3, Whitehall Place, S.W.
1892	Chambers, H. W. (V.P., C., L., A.L.)	101, Goldhawk Road, W.
O.M.	Chapman, C. W., M.D... (V.P., C.)	21, Weymouth Street, W.
1892	Cheatle, G. Lenthal, C.B. (C.)	117, Harley Street, W.
1902	Chowry-Muthu, D. J., M.D.	Mendip Hills Sanatorium, Wells, Somerset.
1903	Clark, F. W., M.D. ..	35, Stanwick Mansions, West Kensington, W.
1894	Clarke, Ernest, M.D. ..	3, Chandos Street, Cavendish Square, W.
1900	Clarke, J. Jackson, M.B.	18, Portland Place, W.
O.M.	Clarke, W. Bruce, M.B. (P., V.P., C.)	51, Harley Street, W.
1888	Clemow, Arthur H. W., M.D. (V.P., S., C., L.)	101, Earl's Court Road, W.
O.M.	Clippingdale, S. D., M.D. (P., V.P., S., C., E.P.)	36, Holland Park Avenue, W.
1889	Coker, O. C.	42, Woodville Gardens, Ealing, W.
1902	Cole, R. H., M.D. ..	48, Upper Berkeley Street, W.
1897	Collier, H. Stansfield ..	57A, Wimpole Street, W.
1883	Collier, M. P. M., M.S.	145, Harley Street, W.
1896	Collier, N. C.	20, St. Mary Abbott's Terrace, Kensington, W.
1901	Collum, R. W... ..	30, Great Marylebone Street, W.
1890	Colman, W. S., M.D. (C.)	9, Wimpole Street, W.
1900	Colyer, Stanley ..	96, Cornwall Gardens, Gloucester Road, S.W.
1899	Comber, C. T. T. ..	Mbanji, Victoria Falls, Rhodesia, South Africa.
O.M.	Cooper, Sir Alfred (P., T.)	9, Henrietta Street, Cavendish Square, W.
1900	Cooper, Austin E., M.D.	104, Buckingham Palace Road, S.W.
1901	Cooper, Bertram ..	19, Sutton Court Road, Chiswick, W.
1895	Corbould, V. A. L., M.D.	8, Victoria Road, Kensington, W.
1885	Cottle, Wyndham, M.D.	39, Hertford Street, Mayfair, W.
1898	Coulson, J. E.	St. George's Infirmary, Fulham Road, S.W.
1888	Coutts, J. A., M.B. (V.P., C.)	54, Upper Berkeley Street, W.
1893	Cox, A. E.	58, High Street, Watford, Herts.
1885	Crombie, J., M.B. (V.P., C.)	Sidcup, Kent.
1895	Crookshank, F. G., M.D.	27, The Terrace, Barnes, S.W.
1901	Curl, S. W., M.B. ..	Heathfield House, Ipswich Road, Norwich.
1897	Cutler, L.	1, Kensington Gate, W.
1899	Dalton, H. C. Fitz-Gerald	Cranbourn Mansions, Cranbourn Street, W.C.
1904	Daniel, P. L.	5, Devonshire Street, Portland Place, W.
1900	Daniel, R. A. D., M.D...	7, Harley Street, W.
1897	Daniel, R. N.	13, Nevern Square, South Kensington, S.W.
1884	Daniell, D. Hugo ..	53, Campden Hill Square, W.
1889	Darley-Hartley, W., M.D.	Greystone Villa, Sea Point, Cape Town.

1903	Davidson, W. A. ..	235, Uxbridge Road, W.
1898	Davies, J., M.D. ..	87, Cambridge Gardens, W.
1897	Davis, H., M.B. ..	9, Norfolk Crescent, W.
1902	Dawe, Frank S., M.D. ..	13, Walham Grove, Fulham, S.W.
1897	Dawson, G. W. ..	9, Portman Street, W.
1896	De Castro, G.	79, Davies Street, Berkeley Square, W.
1902	Delbruck, R. E., M.B. ..	13, Buckingham Gate, S.W.
1901	Dendle, Frank, M.B. ..	Spring Grove, Isleworth.
1895	Denne, F. V., M.D. ..	69, Brook Green, W.
1886	Des Vœux, H., M.D. ..	14, Buckingham Gate, S.W.
1887	Dickinson, T. V., M.D ..	33, Sloane Street, S.W.
1895	Dickman, H. G., M.B...	Diss, Norfolk.
1897	Dickson, T. H., M.B. ..	27, Scarsdale Villas, W.
1896	Dickson, W. P... ..	Coombe Park, Weston, Bath.
1886	Diplock, L. B... ..	21, Heathfield Terrace, Chiswick, W.
1899	Disney, Henry, M.D. ..	6, Bath Road, Chiswick, W.
1903	Dixson, C. F. L., M.D...	4, The Butts, Brentford.
1896	Dobson, L., M.D. (S., C., E.J.)	71, Holland Park Avenue, W.
1892	Dockrell, Morgan, M.D.	9, Cavendish Square, W.
1887	Dodd, H. W.	136, Harley Street, W.
O.M.	Dodsworth, F. C. (C.) ..	Ingledew, Chiswick, W.
1898	Don, W. Walton, M.D...	466, Edgware Road, W.
1899	Donald, James, M.B. ..	
O.M.	Doran, Alban (C.) ..	9, Granville Place, W.
1898	Ducat, Arthur D., M.B.	3, Heathfield Gardens, Chiswick, W.
1886	Dudfield, Reginald, M.D.	19, Blomfield Road, Maida Vale, W.
1887	Dudfield, T. Orme, M.D.	Ashburn, Kew Gardens Road, Surrey.
1903	Dudgeon, L. S. ..	6, Powis Gardens, Bayswater, W.
1900	Duncan, J. M., M.B. ..	Bonaccord, Wellholme Road West, Great Grimsby, Lincolnshire.
1884	Dunn, H. Percy .. (V.P., S., C., E.P., E.J.)	54, Wimpole Street, W.
1897	Dunn, J. C., M.D. ..	39, Gloucester Place, Portman Square, W.
1897	Dutch, Henry, M.D. ..	8, Berkeley Street, W.
1900	Ealand, Hugh.. ..	5, Castle Street, Farnham, Surrey.
1896	Eccles, G. Tolcher, M.B.	63, Sackville Road, Hove, Brighton.
1896	Eccles, H. Annesley, M.D.	Greystoke, 104, Church Road, Upper Norwood, S.E.
1890	Eccles, Wm. McAdam, M.S. (V.P., S., C., E. S.J.)	124, Harley Street, W.
1899	Eccles, W. Soltau ..	104, Church Road, Upper Norwood, S.E.
1893	Eddowes, Alfred, M.D.	28, Wimpole Street, W.
1896	Eden, T. W., M.D. ..	49, Queen Anne Street, W.
O.M.	Edwards, F. Swinford (P., V.P., C.)	55, Harley Street, W.
1903	Edwards, J. M. ..	Camden Wood, Chislehurst, Kent.
1897	Ellacombe, G. W. ..	Bitton Vicarage, near Bristol.
1893	Elliot, Andrew, M.D. .. (S., C.)	11, Upper Berkeley Street, W.
1896	Elliott, H. F.	Sidney House, Sutton Court Road, Chiswick. W.
1895	English, T. J., M.D. ..	128, Fulham Road, S.W.
1888	Ensor, Edwin Thos., M.D.	162, Ladbroke Grove, W.

1900	Erskine, Robert, M.D...	62, Pembridge Villas, Bayswater, W.
1902	Evans, Arthur H., M.D., M.S.	84, Harley Street, W.
1903	Evans, E. Laming, M.D.	36, Bryanston Street, Great Cumberland Place, W.
1898	Evans, E. W. Spencer..	23, Wells Street, Oxford Street, W.
1903	Evans, J. Howell, M.B.	31, New Cavendish Street, Harley Street, W.
1902	Fennell, C. H., M.D. ..	Tooting Bec Hospital.
O.M.	Fenton, F. E.	Langstone, Ealing, W.
1897	Féré, E. N., M.D. ..	12, Northampton Square, E.C.
1898	Ferguson, A. S. ..	31, Harley Street, W.
1893	Fincham, W. S. (C.) ..	53, Kew Bridge Road, Brentford.
1902	Fitzmaurice, W. H. ..	Post-Graduate College, West London Hospital, Hammersmith, W.
1897	Flavelle, J.	Junior Athenæum Club, 116, Piccadilly, W.
1902	Fleming, W. L. R. ..	53, Queen Anne Street, W.
1899	Flemyng, George, M.D.	Sea View, Isle of Wight.
1902	Forbes, W. W... ..	20, Babbacombe Road, Bromley, Kent.
1901	Fort, H. R. T.	Chorley Wood, Rickmansworth.
1888	Fountain, Ed. Osborne, M.D.	Crossley House, Sutton Lane, Turnham Green, W.
1886	Fox, T. Colcott, M.B. ..	14, Harley Street, W.
1903	Fraser, Simon J. C., M.B.	Upington, Gordonia, Cape Colony.
1901	Frazer, J. E.	22, Croxted Road, West Dulwich, S.E.
1902	French, A. M., Fleet-Surg. R.N.	Langley, Beaufort Road, Kingston.
1900	French, Gilbert ..	Thorncroft, High Road, Chiswick, W.
1896	Freyer, P. J., M.D. ..	46, Harley Street, W.
O.M.	Friend, H. E.	1, St. Stephen's Crescent, Westbourne Park, W.
1903	Fry, W. E.	Aberdeen House, Queen Street, Hammersmith, W.
1887	Gardner, W. T., M.B. (V.P., C.)	Fairseat, Poole Road, Bournemouth.
1904	Garrett, John ..	Nortoft, Churchfield Road, Acton, W.
1901	Gask, George E. ..	45, Weymouth Street, W.
1903	Gault, D., M.D. ..	Medical Superintendent's Office, Orokonui Home, Waitati, Otago, New Zealand.
1898	Gibbes, L. N.	1, Gloucester Walk, Kensington, W.
1884	Gillingham, A... ..	485, High Road, Chiswick, W.
1903	Godfrey, H. W., M.B. ..	Southleigh, Frinton-on-Sea, Essex.
1902	Gomess, A. F. B. ..	33, Drayton Gardens, S. Kensington, S.W.
1888	Goodsall, D. H. ..	17, Devonshire Place, W.
1901	Gordon-Smith, H., M.B.	17, Dartmouth Park Road, Highgate, N.
1893	Gossage, A. M., M.B. ..	54, Upper Berkeley Street, W.
1903	Graham, G. H., M.D. ..	44, Castlenau, Barnes, S.W.
1898	Grant, Alfred J., M.D. ..	6, Queen's Club Terrace, West Kensington, W.
1897	Granville, A. G. ..	56, Flanders Road, Bedford Park, W.
1894	Graydon, A.	73, Talbot Road, W.
1901	Greene, S. H.	110, Oxford Gardens, N. Kensington, W.
1900	Greenhill, E. F. ..	60, York Road, Bedminster, Bristol.

1903	Greg, A. H., M.B ..	16, West Halkin Street, Belgrave Square, W.
1896	Gregory, E. T... ..	26, Redcliffe Gardens, S.W.
1896	Griffith, A. L., M.D. ..	606, Harrow Road, W.
1888	Griffiths, H. T., M.D. ..	5, Kensington Square, W.
1900	Grindrod, Cyril J. ..	11, Knowsley Road, Rock Ferry, Cheshire.
1901	Grünbaum, Otto, M.D.	30A, Wimpole Street, W.
1898	Haines, Charles H., M.D.	Auckland, New Zealand.
1896	Halley, W.	Park House, 724, Fulham Road, S.W.
1901	Hancock, C. Sortain, M.D.	33, Fairlop Road, Leytonstone.
1889	Handfield - Jones, M., M.D.	35, Cavendish Square, W.
1901	Harold, John, M.B. ..	91, Harley Street, W.
1896	Harrison, C. J., M.D. ..	36, Cheyne Court, S.W.
O.M.	Harrison, H. F. E. ..	33, Shepherd's Bush Green, W.
1890	Harrison, Reginald ..	6, Lower Berkeley Street, W.
1898	Harrison, R. C. ..	33, Uxbridge Road, Ealing, W.
1896	Hartley, R., M.D. ..	Feltwell Lodge, Feltwell, near Brandon, Norfolk.
1896	Harvey, J. S., M.D. ..	1, Astwood Road, Cromwell Road, S.W.
1899	Haydon, Arthur G., M.D.	23, Henrietta Street, W.
1904	Heard, W. N., M.B. ..	18, Ravenscroft Road, Chiswick, W.
1888	Heddy, W. J.	46, Redcliffe Gardens, S.W.
O.M.	Hendley, H., M.D., Lt.-Col. I.M.S. (S.)	13, Girdlers Road, Brook Green, W.
1883	Hendley, T. H., C.I.E., Col. I.M.S.	4, Loudoun Road, St. John's Wood, N.W.
1900	Henshaw, H. W. ..	1, Priory Terrace, Kew.
1903	Hill, A. C., M.D. ..	169, Cromwell Road, W.
1890	Hill, William, M.D. ..	26, Weymouth Street, W.
1897	Hills, W. C. D.	New Bridge House, Upwell, Wisbech.
1888	Hill-Wilson, Arthur E.	30, Stamford Brook Road, W.
O.M.	Hogan, J. C., M.D. ..	3, Redcliffe Gardens, South Kensington, S.W.
1896	Hogg, F. Stanley ..	102, Lansdowne Road, Clapham Road, S.W.
1898	Hogg, F. S. D... ..	The Cedars, Rickmansworth.
1898	Holloway, Samuel F. ..	Holmwood, The Avenue, Bedford Park, W.
O.M.	Hood, D. W. C., C.V.O., M.D. (P., V.P.)	43, Green Street, W.
1903	Hoskyn, D. T., M.B., Fleet-Surg., R.N.	H.M.S. Crescent, Cape of Good Hope Station.
1885	Humphreys, F. W. ..	44, Addison Gardens, W.
1893	Hunter, William, M.D... (C.)	103, Harley Street, W.
1887	Hurlbutt, S.	15, Old Burlington Street, W.
1896	Ince, A. G.	Sturry, Kent.
1901	Inchley, O., M.B. ..	16, Victoria Street, Loughborough.
1899	Isaacs-Coke, E. P. ..	1, Sinclair Road, Kensington, W.
1902	James, Arthur, M.D. ..	69, Gloucester Terrace, W.
1895	James, J. Brindley ..	83, Bridge Road, Hammersmith, W.
O.M.	James, W. Culver, M.D.	15, Marloes Road, Kensington, W.
1896	Jessop, W. H., M.B. ..	73, Harley Street, W.

1891	John, William.. ..	24, Belsize Park Gardens, Hampstead, N.
1904	Johnston, Alex. J. J., Fleet Surgeon R.N.	Haslar Hospital.
1894	Johnston, George F., M.D.	3, Montagu Place, Montagu Square, W.
1900	Johnston, R. C., M.B., Capt. R.A.M.C.	Junior Army and Navy Club, S.W.
1898	Jones, H. B., M.B. ..	
1899	Jones, H. S. Wansborough, M.B.	Poplar Cottage, Harrow.
1887	Jones, Macnaughton, M.D.	131, Harley Street, W.
1886	Juler, H. E.	23, Cavendish Square, W.
1896	Keep, A. C., M.D. ..	14, Gloucester Place, W.
O.M.	Keetley, C. B... .. (P., V.P., S., C., E.P., L.)	56, Grosvenor Street, W.
1899	Keown, David B. ..	88, Eaton Terrace, S.W.
1902	Kerr, D. O., M.B. ..	32, Camberwell New Road, S.E.
1884	Kiallmark, H. W. ..	5, Pembridge Gardens, W.
1901	Kingsford, A. B. ..	11, Burwood Place, W.
1897	Kingsford, B. H., M.B.	Sherwood, Guildford Road, Woking.
1904	Kinsey-Morgan, A., M.D.	Hillcote, Richmond Hill, Bournemouth.
1892	Kinsey-Taylor, A. E., M.B.	26, Lancaster Gate, W.
1902	Kirby, R. A., M.B. ..	193, St. James' Court, S.W.
1897	Kirby, W., M.D. ..	Hilden, Sutton Court Road, Chiswick, W.
1900	Kirkaldy, W. B., M.D...	Chichester Infirmary, Chichester, Sussex.
1896	Kloster, O., M.B. ..	5, St. George's Square, Regent's Park, N.W.
1896	Knight, H.	Eskholme, Shirley, Southampton.
1887	Lake, Richard.. .. (V.P., S., C., E.P.)	19, Harley Street, W.
O.M.	Lamb, W. H., M.B. .. (V.P., C.)	23, Palace Court, W.
1894	Lancaster, H. F, M.D.	154, Westbourne Terrace, W.
1904	Landon, E. E. ..	Bradbourne House, Acton, W.
1901	Last, C. E.	Bletsoe House, Littlehampton.
O.M.	Lawrance, F. (P., T., V.P., C.)	3, St. Peter's Square, Hammersmith, W.
1904	Lawson, Fred. J., M.B.	Sherwood, 4, Palewell Park, East Sheen, S.W.
1884	Leeson, Oliver J. ..	Collingham House, Cromwell Road, S.W.
1900	Lehane, D., M.D. ..	29, Egerton Crescent, S.W.
1898	Leslie, R. Murray, M.B.	26, Harley Street, W.
1898	Levy, A. G., M.D. ..	41, Devonshire Street, W.
1893	Lewis, Ernest Wool ..	The Hermitage, Fulham Palace Road, S.W.
1896	Ley, G., Surg., R.N. ..	11, Longfield Road, Ealing, W.
1902	Lilly, F. J., Fleet-Surgeon, R.N.	Royal Naval Barracks, Devonport.
1899	Ling, Maurice E., M.D...	115, Harley Street, W.
1901	Lister, T. D., M.D. ..	50, Brook Street, W.
1892	Lloyd, F. G.	25, Victoria Grove, Gloucester Road, S.W.
O.M.	Lloyd, R. W. .. .. (P., V.P., S., C, E.P.)	27, Russell Road, Kensington, W.
1902	Lock, G. H.	133, Uxbridge Road, W.
1890	Lockyer, C. H. J., M.D...	117A, Harley Street, W.
1892	Loftus, A. S.	Collingbourne, Christchurch Road, Boscombe.

1883	Longhurst, A. K. ..	Hughenden, Mount Park Road, Ealing, W.
1896	Low, F. H., M.B. (V.P., C.)	Heath Bank, Blackheath Rise, S.E.
1882	Low, R. Marsden, M.B. (C.)	70, Philbeach Gardens, S.W.
1902	Lund, K. F., M.B. ..	2, Fopstone Road, Earl's Court, S.W.
O.M.	Lunn, J. R. (V.P., C.) ..	St. Marylebone Infirmary, Notting Hill, W.
1903	Lupton, A. C., M.B., Capt. R.A.M.C,	62, Fairholme Road, W.
1888	Lush, Percy J. F., M.B. (A.)	4, Maresfield Gardens, Hampstead, N.W.
1896	Lyle, F. W., M.D. ..	39, The Avenue, Castle Hill, Ealing, W.
1890	Lynes, John	2, Argyll Road, Kensington, W.
1898	Lyon, A. Barclay, M.D.	165, The Grove, Hammersmith, W.
1896	Lyth, E. R., M.B. ..	117, Goldhawk Road, W.
1894	McCann, F. J., M.D. .. (V.P., S., C.)	5, Curzon Street, W.
1897	McDougal, E. D. ..	Ruel, Walton-on-Thames.
1902	McKay, J. B., M.D. ..	62, Hogarth Road, Earl's Court, S.W.
1902	McKenzie, J., M.B. ..	c/o Director-General, R.A.M.C., Victoria Street, S.W.
1898	Mackintosh, R. D., M.B.	The Bungalow, Mortlake, S.W.
1890	Maclaren, J. A., M.B. ..	2, Fairholme Road, W. Kensington, W.
1897	Macleod, W. A., M.B. ..	9, Pembridge Villas, Bayswater, W.
1897	McNamara, J., M.D. ..	3, Holland Road, Kensington, W.
1890	Macnaughton, G. W. F., M.D.	33, Lower Belgrave Street, S.W.
1902	Maguire, Geo., M.D. ..	Glengariff, Kew Road, Richmond, Surrey.
1898	Maidlow, W. H., M.D...	Ilminster, Somerset.
1903	Malcolm, A. J. ..	39, Gwendwr Road, W. Kensington, W.
1896	Malcolm, J. D., M.B. ..	13, Portman Street, Portman Square, W.
O.M.	Mallam, W. P. (V.P., C.)	169, Uxbridge Road, W.
1891	Mallard, F. R. (C., A.)..	23, Bridge Road, Hammersmith, W.
1890	Mansbridge, J. (C.) ..	112, Harley Street, W.
1890	Margrave, M. L. ..	3, Devonia, Newton Abbot, Devon.
1885	Mark, Leonard, M.D. .. (V.P., S., C., E.P., A.)	49, Oxford Terrace, Hyde Park, W.
1883	Marsh, Howard, M.C. ..	14, Hertford Street, Mayfair, W., and 10, Scrope Terrace, Cambridge.
1904	Marshall, J. C., M.B. ..	66, Sutherland Avenue, W.
1885	Masters, J. A., M.D. (V.P., C.)	94, Knightsbridge, S.W.
1904	Masters, W. Hooper, M.D.	Oxford Villa, Castlenau, Barnes.
1898	Maunsell, D. F... ..	67, Earl's Court Road, S.W.
1903	Maxwell, R. F. ..	211, Uxbridge Road, W.
1898	May, C. Gould, M.D. ..	59, Cadogan Place, S.W.
1902	Meachen, G. Norman, M.D.	27, New Cavendish Street, W.
1899	Melville, Stanley, M.D.	18, Nevern Road, Earl's Court, S.W.
1887	Mennell, Zebulon ..	1, Royal Crescent, Notting Hill, W.
1903	Mennell, Zebulon, M.B.	57, Holland Park Avenue, W.
1894	Menzies, Henry, M.B. ..	4, Ashley Gardens, S.W.
1885	Menzies, J. Herbert .. (V.P., S., C., E.P.)	47, Earl's Court Square, S.W.
1896	Miles, W. E.	17, Devonshire Place, Upper Wimpole Street, W.
1899	Millard, W. J. Kelson, M.D.	Frediden, Hewlett Road, Cheltenham.

1895	Miller, F. R., M.D ..	70, Holland Road, Kensington, W.
O.M.	Miller, J. D., M.B. ..	152, Holland Park Avenue, W.
1893	Mills, H. H., M.B. ..	21, St. Mary Abbott's Terrace, Kensington, W.
1901	Mitchell, G. H., M.B. ..	71, Craven Park, Harlesden, N.W.
1888	Moore, Stephen H. ..	75, Sydney Street, Chelsea, S.W.
1900	Morier, C. G. D. ..	1, Hamilton Terrace, N.W.
1896	Morison, A., M.D. (C.)..	14, Upper Berkeley Street, W.
1893	Morris, E. H. Grant, M.B.	8, Gloucester Terrace, Onslow Gardens, S.W.
1896	Mortimer, J. D., M.B. ..	4, Burton Court, Lower Sloane Street, S.W.
1896	Moullin, J. A. Mansell, M.B. (C.)	80, Porchester Terrace, W.
1896	Muggleton, F. C., M.D.	2, High Street, Gosport, Hants.
1883	Muir, J. C. P.	94, Ladbroke Grove, Notting Hill, W.
1900	Murphy, J. K., M.D. ..	16, St. Petersburgh Place, W.
1897	Mursell, H. T., M.B. ..	81, Jeppe Street, Von Brandis Square, Johannesburg, Transvaal.
1896	Musson, William C. (A.)	61, Bridge Avenue, Hammersmith, W.
1904	Nash, A. T., M.D. ..	Beresford House, Ladbroke Grove, W.
1896	Nicol, T. V.	147, Cromwell Road, S.W.
1904	Nightingale, P. A., M.D.	9, Campden Hill Road, Kensington, W.
1900	Nitch-Smith, R. ..	10, New Bond Street, W.
1903	Nolan, W.	28, Upper Phillimore Place, Kensington, W.
1887	Noott, W. M.	8, Kensington Park Road, W.
1900	Norbury, W.	32, Gordon Square, W.C.
1896	Norman, F., M.D. ..	5, Holland Road, Brixton, S.W.
1900	Norton-Taylor, A. ..	West Hoathly, Sussex.
1902	Olver, W. R., M.B. ..	c/o Manager, Bank of New South Wales, Old Broad Street, E.C.
1895	Orr, J. J., M.D. ..	493, King's Road, Chelsea, S.W.
1882	Orton, G. H., M.B. ..	7, Campden Hill Road, Kensington, W.
1902	Orton, G. Harrison, M.B.	7, Campden Hill Road, Kensington, W.
1894	Otway, A. Carrol ..	63, Castlenau, Barnes, S.W.
1902	Oxley, A. James Rice, M.D. (C.)	7, Courtfield Road, South Kensington, S.W.
1903	Page, A. M., Staff-Surg., R.N.	Pindi Peak Hill, Sydenham, S.E.
1902	Page, H. M., M.D. ..	14, Grenville Place, S.W.
1888	Paget, Stephen (C.) ..	70, Harley Street, W.
O.M.	Palmer, F. S., M.D. ..	19, Harley Street, W.
1887	Paramore, R., M.D. ..	2, Gordon Square, W.C.
1896	Pardoe, J. G., M.B. (C., E.S.J.)	77, Wimpole Street, W.
1894	Parker, Charles A. ..	141, Harley Street, W.
1890	Parker, W. Turnour ..	68, Lillie Road, Fulham, S.W.
1903	Parmer, W. F., M.B. ..	2, Linden Gardens, Notting Hill Gate, W.
1901	Parsons, C. T., M.D. ..	Fulham Infirmary, Hammersmith, W.
1898	Paterson, H. J., M.B. ..	9, Upper Wimpole Street, W
1887	Paterson, W. B. ..	7A, Manchester Square, W.
1882	Patmore, Tennyson (C.)	63, Cambridge Gardens, North Kensington, W.

1896	Paton, E. P., M.D., M.S. (C.)	84, Park Street, Grosvenor Square, W.
1899	Patterson, J., M.D. ..	British Consulate, Constantinople.
1889	Pattison, E. S.	Granville House, Fulham Road, S.W.
1903	Peake, W. H., M.D. ..	1, Platts Lane, Hampstead, N.W.
1894	Pegler, Louis H., M.D...	58, Harley Street, Cavendish Square, W.
1900	Pentreath, H. M. ..	14, Paragon, Ramsgate, Kent.
1900	Pernet, George ..	152, Harley Street, W.
1897	Philps, F. G.	3, The Mansions, Richmond Road, Earl's Court, S.W.
O.M.	Pickett, J., M.D. (V.P., C.)	49, Queen Victoria Street, E.C.
1897	Pitt, F. D.	115, High Road, Chiswick, W.
1883	Pocock, F. E., M.D. ..	The Limes, St. Mark's Road, Notting Hill, W.
1901	Podmore, R.*	The Cottage, S. Parade, Bedford Park, W.
1903	Pollock, A. K. H. ..	Dibrugarh, Assam.
1896	Pollock, J. D., M.D. ..	98, Earl's Court Road, S.W.
1898	Pollock, Rowland (C.)..	Penton Lodge, Mill Hill Park, W.
O.M.	Pope, H. Campbell, M.D. (P., V.P., S., C., E.P.)	280, Goldhawk Road, Shepherd's Bush, W.
1897	Porter, R. I.	90, Edith Road, W.
1896	Potter, E. Furniss, M.D. (V.P., C.)	49, Queen Anne Street, W.
O.M.	Potter, H. Percy, M.D... (P., V.P., C.)	Kensington Infirmary, Marloes Road, W.
1899	Poulter, A. R.	4, Gordon Mansions, W.C.
1900	Poynder, F. C., M.B. ..	92, High Street, East Grinstead.
1900	Pratt, C. C.	10, Downleaze, Sneyd Park, Bristol.
1896	Pritchard, O., M.D. ..	37, Southwick Street, Hyde Park, W.
1902	Provis, F. Lionel ..	11, Brook Street, W.
1898	Pruen, S. T., M.D. ..	Sherborne Lodge, Cheltenham.
1898	Ralph, R. M., M.D. ..	Lanark District Asylum, Hartwood, Spotts, Lanarkshire, N.B.
1903	Reckitt, E. B., M.D. ..	Boston, Lincolnshire.
1885	Reece, R. J., M.D. ..	62, Addison Gardens, W.
1902	Reid, G., M.B.	Mersey Road, Blundellsands, Liverpool.
1883	Reid, John, M.D. ..	43, Lonsdale Road, Barnes.
1902	Renny, A. W., M.B. ..	Durham Lodge, Shirley, Southampton.
1891	Revill, G. L. H. ..	Heighington, Lincoln.
1903	Rhodes, J. H., M.B. ..	
O.M.	Richardson, Gilbert, M.D.	19, Putney Hill, S.W.
1903	Richmond, W. S. ..	25, Queensberry Place, S. Kensington, S.W.
1887	Roberts, John D. ..	103, Uxbridge Road, Ealing, W.
1900	Robinson, E. Tait, M.D.	21, Gloucester Place, W.
1890	Robinson, G. H. D., M.D. (V.P., S., C.)	84, Park Street, Grosvenor Square, W
1903	Robson, A. W. Mayo ..	8, Park Crescent, Portland Place, W.
1898	Rock, Frank E., M.D. (A.)	Southerton House, Hammersmith, W.
1898	Roe, William F. ..	96, Grosvenor Road, Highbury, N.
1903	Rogers, E. N. T. ..	7, Linden Gardens, Chiswick, W.
O.M.	Rogers, Hildyard ..	43, Uxbridge Road, W.
1900	Ross, T. Mackay, M.B.	21, Cremorne Road, Chelsea, S.W.
1893	Rotheroe, W. B. ..	47, Gloucester Place, W.
1883	Roughton, E. W., M.D.	38, Queen Anne Street, W.

1893	Routh, Amand J. M., M.D.	14A, Manchester Square, W.
1902	Ruck, D. N.	1, St. Mary's Road, Ealing, W.
1898	Rudd, W. A., M.D. ..	Danehurst, Acton Hill, W.
1902	Russell, A. E., M.D. (C.)	9, Wimpole Street, W.
1898	Rutherford, A. F., M.B. (S., C.)	Meadow House, St. Boswell's, N.B.
1897	Ryall, Charles	51, Queen Anne Street, W.
1893	Ryall, E. C.	30, Harley Street, W.
1901	St. Aubyn-Farrer, Chas.	7, Westbourne Park Road, W.
1902	Salt, E. C., M.B. ..	Bridge Street, Burton-on-Trent.
1899	Saunders, E. A., M.B. (S., C.)	49, Harley Street, W.
1893	Savery, Frank (V.P., C.)	4, Mount Park Road, Ealing, W.
1904	Saw, A. J. H., M.D. ..	Perth, W. Australia.
O.M.	Schacht, F. F., M.D. .. (P., V.P., S., C., L.)	153, Cromwell Road, S.W.
1899	Schilling, George ..	41, Tollington Park, N.
1895	Schofield, S. R., M.B. ..	1, Gunterstone Road, West Kensington, W.
1889	Scott, A., M.D... ..	Bradford Street, Bocking, Essex.
1894	Scott, A. L.	115, Uxbridge Road, Ealing, W.
1901	Scott, C. C., M.B. ..	The Hollies, St. Margarets, Twickenham.
1900	Scott, Kenneth, M.B. ..	7, Manchester Square, W.
1898	Scott, Lindley M., M.D.	98, Sloane Street, S.W.
1897	Seccombe, P., M.B. ..	Fern Lea, West Drayton.
1902	Seymour, H. F., M.B. ..	College Gates, High Street, Worcester.
1886	Shadwell, H. W. ..	30, Walbrook, E.C.
1894	Shaw, Arthur H. P. ..	Cranbrook, Kent.
1898	Shaw-Mackenzie, J. A., M.D.	42, Green Street, Park Lane, W.
O.M.	Sheldon, T., M.D. ..	25, Powis Square, Notting Hill, W.
1901	Sheldon, W. Sirr ..	25, Powis Square, Notting Hill, W.
1901	Shepheard, H. ..	18, Brook Green, W.
1896	Shuter, G. P., M.B. (V.P., S., C.)	Cleveland House, Chiswick Lane, W.
1895	Shuttleworth, G. E., M.D.	Ancaster House, Richmond, Surrey.
1904	Sibley, O. Carden ..	11, Elmwood Gardens, Acton Hill, W.
1903	Sikes, A. W., M.D. ..	40, Argyll Road, Kensington, W.
1902	Silcock, A., M.D., Lt.-Col. I.M.S.	Civil Surgeon, Raipur, Central Provinces, India.
1898	Simpson, F. Hampson, M.D.	45, Welbeck Street, Cavendish Square, W.
1899	Simpson, G. A. Garry (C.)	Bardon House, East Acton, W.
1898	Sinclair, A. M. Ross, M.B. (C.)	213, New King's Road, Parson's Green, S.W.
1904	Sinclair, John, M.D. ..	Med. Dept., Gen. Post Office, St. Martin's-le-Grand, E.C.
1900	Slater, W., M.D. ..	Woodland Cottage, New Wanstead, N.E.
1901	Slocock, R.	Spilsby, Lincolnshire.
1901	Smith, A. Tennyson, M.D.	Shanklin, Orpington, Kent.
1897	Smith, G. C., M.D. ..	14, South Street, Newton Abbot.
1883	Smith, H. A., M.D. ..	84, London Road, Bromley.
1900	Smith, Joseph.. ..	15, Bath Road, Bedford Park, W.

1886	Smith, Stanley, M.D. ..	68, Wimpole Street, W.
1886	Smith, Travers R., M.D.	13, Kilburn Park Road, N.W.
1896	Snape, E., M.D. ..	41, Welbeck Street, W.
1901	Snowden, A. de W., M.B.	St. Vedast, 25, Carlton Road, Putney, S.W.
1902	Soltau, Henry.. ..	49, Highbury Park, N.
1898	Spaull, Percy W. ..	1, Stanwick Road, W. Kensington, W.
1903	Speirs, H. M., M.B. ..	Eaglecliffe Junction, R.S.O., Northumberland.
1890	Spencer, Herbert, M.D.	104, Harley Street, W.
1896	Spencer, M. H., M.D. ..	92, Oxford Gardens, N. Kensington, W.
1896	Squire, J. E., M.D. ..	5, Harley Street, W.
1900	Stabb, Arthur, M.B. ..	132, Harley Street, W.
1886	Starkie, R. F., M.D. ..	76, Gloucester Street, Warwick Square, S.W.
1891	Startin, James ..	15, Harley Street, Cavendish Square, W.
1896	Staveley, W. H. C. ..	24, Sloane Gardens, S.W.
1898	Steegmann, E. J., M.B.	Derby House, Spring Grove, Isleworth.
1904	Steggall, Septimus L. J.	92, Bedford Court Mansions, W. (and Port Simon, Costa Rica).
1903	Stoker, E. W.	9, Old Burlington Street, W.
1887	Sunderland, Sept., M.D.	11, Cavendish Place, W.
1896	Sutherland, G., M.D. ..	73, Wimpole Street, W.
1900	Swain, E.	Fairholme, Uxbridge Road, Hampton Hill.
1896	Swinhoe, G. R. ..	The Close, New Swindon, Wilts.
1887	Tait, E. S., M.D. ..	48, Highbury Park, N.
1892	Taylor, Michael H. (C.)	Tudor House, Twickenham.
1886	Taylor, Seymour, M.D. (P., V.P., C.)	16, Seymour Street, Portman Square, W.
1897	Templeton, G., M.B. ..	10, Seymour Street, W.
1896	Thompson, G. W., M.B.	15, Harley Street, W.
1893	Thompson, Maitland ..	The Marlowes, Hemel Hempstead, Herts.
1889	Thomson, J. C., M.D. ..	111, Sinclair Road, West Kensington Park, W.
1902	Thorne-Thorne, Leslie, M.D.	45, Inverness Terrace, W.
1901	Thornhill, W. H., Lt.-Col. I.M.S.	85, Pimlico Road, S.W.
1889	Thornton, B.	Berkeley Lodge, Margate.
1904	Thornton, H. J. ..	The Maples, Acton, W.
1899	Tilley, Herbert, M.D. ..	89, Harley Street, W.
1902	Timmins, J. L., M.B. ..	24, Green Park, Bath.
1897	Townsend, M. M. ..	15, Queen Street, Hammersmith, W.
1900	Travers, F. T., M.B. ..	6, Clarendon Place, Maidstone.
O.M.	Travers, W., M.D. .. (P., V.P., C.)	2, Phillimore Gardens, Kensington, W.
1900	Treherne, F. H., Lt.-Col. R.A.M.C.	Netley Cliff, Netley, Hants.
1898	Trethowan, William, M.B.	128, Aberdeen Street, Perth, W Australia.
O.M.	Tuke, C. M. (P., V.P., C.)	Chiswick House, Chiswick, W.
1892	Tuke, T. Seymour, M.B.	30, Queen Anne Street, W.
1896	Tunnicliffe, F. W., M.D.	129, Harley Street, W.
1893	Turnbull, G. L., M.D. ..	47, Ladbroke Square, W.
1897	Twynam, A. E. E. ..	Gold Coast Government Railways, Lekondi, West Africa.
1896	Twynam, G. E. (V.P., C.)	31, Gledhow Gardens, South Kensington, S.W.
1902	Tyrrell, F. A. C., M.B. ..	Belle Vue, Swanley, Kent.
1896	Tyson, W. J., M.D. ..	Castle Hill Avenue, Folkestone.

1896	Vallencey, A. d'Estampes	34, Shaftesbury Road, Hammersmith, W.
1896	Vivian, P.	30, Brook Green, W.
1891	Waggett, E. B., M.B. ..	45, Upper Brook Street, W.
1903	Wainwright, F. R., M.D.	Aldwych, Studland, Dorset.
1895	Wakefield, R. Clark, M.D.	24, Mapesbury Road, Brondesbury, N.W.
O.M.	Walker, Horace (V.P., C.)	143, Hammersmith Road, W.
1901	Walker, L. A., M.B. ..	168, Ladbroke Grove, W.
1889	Wall, Reginald B. ..	72, Bishop's Road, W.
1896	Wallace, F. G., M.B. ..	186, Earl's Court Road, S.W.
1898	Wallace, Joseph B., M.B.	39, Battersea Rise, S.W.
1886	Walsh, David, M.D. ..	Lamb Building, Temple, E.C.
1899	Walter, W. H., M.D. (S., C.)	Hambledon Croft, Windmill Road, Brentford.
1896	Walters, F. R., M.D. ..	Pinecroft, Farnham, Surrey.
1903	Ward, E. C., M.D., Staff-Surg. R.N.	H.M.S. Black Prince, Queenstown, Ireland.
1899	Warde, Wilfrid B., M.D.	13, Lonsdale Gardens, Tunbridge Wells.
1897	Waterhouse, H. F., M.D.	81, Wimpole Street, W.
1897	Watson, J. K., M.D. ..	Byfleet, Surrey.
1892	Watts, A. T. Guy, M.B.	36, Russell Road, Kensington, W.
1890	Waugh, H. D., M.D. ..	18, Onslow Gardens, S.W.
1888	Webb, H. (V.P., C.) ..	Wentworth House, Parson's Green, S.W.
1885	Wells, A. G. (V.P., C.) ..	Keith House, Beaumont Terrace, Kensington, W.
1901	West, Samuel, M.D. ..	15, Wimpole Street, W.
1893	Wharry, H. G. Oliphant	55, Park Street, Grosvenor Square, W.
1883	Wheatley, A. W., M.B. (A.)	1, Kensington Square Mansions, Young Street, Kensington, W.
1891	White, C. Percival, M.B.	22, Cadogan Gardens, S.W.
1903	Whitelegge, W. A., M.D., Fleet-Surgeon, R.N.	H.M.S. Cornwallis, Mediterranean Station.
1896	Whitfield, Arthur, M.D. (C.)	21, Bentinck Street, W.
1888	Williams, Alex. L. ..	33, Campden House Road, Kensington, W.
1898	Williams, Augustus F.	19, Sackville Gardens, Hove.
1902	Williams, Chisholm ..	20, Bedford Square, W.C.
1890	Williams, H. Lloyd ..	2, Upper Wimpole Street, W.
1889	Williams, R. Muzio, M.D.	35, Kensington Park Gardens, W.
1891	Wilson, R. W., M.D. ..	The Moorings, Ennerdale Road, Kew Gardens.
1891	Wilson, William, M.B...	184, Goldhawk Road, W.
1904	Windle, J. D., M.D. ..	Cippenham Lodge, Southall.
1897	Woakes, C.	78, Harley Street, W.
1889	Woakes, Edward, M.D.	78, Harley Street, W.
1889	Wood, N. T., M.D. .. (V.P., S., C.)	42, Elvaston Place, S.W.
1884	Woodforde, A. P. ..	160, Goldhawk Road, Shepherd's Bush, W.
1900	Wood-Hill, H. G. ..	45, Station Road, Beccles, Suffolk.
1889	Wornum, G. Porter ..	58, Belsize Park, N.W.
1899	Wylie, A., M.D. ..	7, Harley Street, W.

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1884	Atkinson, J. M., M.B. ..	Civil Service, Hong Kong.
O.M.	Beckingsale, D. L., M.D.	N. Ontario, San Bernardino Co., California, U.S.A.
1896	Bidwell, Lawrence, Staff-Surgeon, R.N.	H.M.S. Medea.
1889	Brown, F. J., Capt. R.A.M.C.	
1897	Buendia, N., M.D. ..	Bogota, Columbia.
1896	Dardel, Jean, M.D. ..	Aix-les-Bains, Savoie, France.
1885	Davis, E., Major R.A.M.C.	
1885	Edwards, W. R., M.D., Major I.M.S.	
1902	Fish, R. C., M.D., ..	c/o Lewis Fish, Esq., Myrtle Avenue, Fitchburg, Mass., U.S.A.
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1892	Humphry, A. D. ..	Kurseong, Bengal.
1893	Krohn, R. E. S., M.D...	Funchal, Madeira.
1885	McCulloch, T. C., M.B., Major R.A.M.C.	
1896	MacDougall, J. A., M.D.	Villa Letterewe, Cannes.
1891	Mangan, F. M., Capt. R.A.M.C.	7, Marine Place, Dover.
1902	Morgan, J. C., Major R.A.M.C.	Station Hospital, Calcutta, India.
1889	Napier, A. Leith, M.D.	Adelaide Hospital.
1887	Odling, T. F., C.M.G. ..	Teheran, Persia, c/o Messrs. Hickie, Bowman and Co., 14, Waterloo Place, S.W.
1902	Olivier, Jean, M.D. ..	Rue du Mont de Sion, Geneva.
1901	Robertson, Patrick, M.D.	Canada.
1883	Walsh, J. H. T., Major I.M.S.	
1889	Webster, G. A., M.B. ..	Caulfield, Melbourne.

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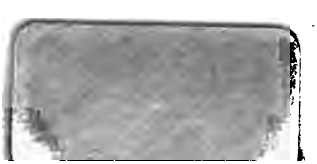
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